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DATE: December 1, 2004

TO: Ms. Tammy Smith  
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Site Remediation Program  
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RE: SI/RO Report  
SiPi Metals Corp.  
1720 N. Elston Avenue  
Chicago, Illinois 60622

## TRANSMITTAL LETTER

Project No: 15-04183.00-006

Attention: Ms. Tammy Smith

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If you have any questions, call me at (630) 795-3204.

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DEC 03 2004

Submitted by:

*Marie E. Mueller*  
(Marie E. Mueller, Project Manager)

REVIEWER MD

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# Comprehensive Site Investigation and Remedial Objectives Report

**SiPi Metals Corporation**  
**1720 North Elston Avenue**  
**Chicago, Illinois**

*Prepared for:*  
**SiPi Metals Corporation**  
Chicago, Illinois

Clayton Project No. 15-04183.00-004  
November 29, 2004

**RELEASE**

DEC 03 2004

**REVIEWED MD**  
CLAYTON GROUP SERVICES, INC.  
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## **EXECUTIVE SUMMARY**

Clayton Group Services, Inc. prepared this Site Investigation/Remediation Objectives Report (SI/RO) on behalf of SiPi Metals Corporation (SiPi) to document the investigative activities conducted at the SiPi property (subject property) located at 1720 North Elston Avenue, Chicago, Illinois and to obtain approval of the remediation objectives. The approved remediation objectives will be used in developing the Remedial Action Work Plan to address the impacted soils related to the Areas of Concern (AOCs) identified during the site investigation.

The Site Investigation was based on the results of Clayton's August 2004 Phase I Environmental Assessment. The Site Investigation was conducted in two stages: The Stage 1 Investigation consisted of an initial investigation of soil and groundwater; and the Stage 2 Investigation consisted of further delineation of the impacted soils identified during the Stage 1 Investigation. In total, the Site Investigation consisted of the following: 61 soil borings; collection and analyses of 104 soil samples; installation, development, and sampling of six groundwater monitoring wells; collection of nine groundwater grab samples; surveying and water level measurements of the six groundwater monitoring wells; and slug test evaluation of four of the groundwater monitoring wells.

Based on the data collected during the Site Investigation, the following conclusions were identified:

1. In general, the geology beneath the subject property consists of sandy fill and/or topsoil underlain by silty clay. The topsoil and/or fill ranges in thickness from 1.5 to 9.0 feet. Groundwater was encountered at the interface between the fill material and the native silty clay. Based on water level elevations in the groundwater monitoring wells, the general groundwater flow direction is to the east/northeast.



2. During Clayton's previous Phase I ESA activities, 21 recognized environmental concerns (RECs) were identified at the subject property.
3. Based on the results of the Phase II investigations, no further investigation is warranted at the following RECs:
  - a) REC 1: The northeast section of the main building was formerly used to process metals out of spent acidic plating solutions.
  - b) REC 10: A gasoline underground storage tank (UST) and dispensing pump formerly located at the west end of the southern wall of the main building was removed without documentation in 1990.
  - c) REC 14: Two 10,000-gallon fuel oil USTs installed in 1974 and removed in 1990 without documentation, were present in the area north of the Taylor Baghouse.
  - d) REC 17: The former operations may have included the use of paints and solvents at the 1660 Besly Building.
  - e) REC 18: Two hydraulic freight elevator systems are located at the 1660 Besly Building.
  - f) REC 19: A "locomotive warehouse" was situated on this property in a 1914 Sanborn Fire Insurance Map.
4. RECs 2, 6, 7, 8, 12, 13, 15, and 16 had soil and/or groundwater constituents above TACO Tier 1 SROs, however based on the constituents detected, the individual RECs have been combined into the AOCs.
5. Based on the data collected during the extensive assessment activities at the subject property, the RECs (where residual chemical compounds were detected) were consolidated into the following five AOCs (AOC I through V):
  - a) **AOC I – Former Foundry Operations/Fill Material (Former REC #3 & 4):** Polynuclear aromatic compound (PNA) constituents, total lead, and total arsenic assumed to be associated with the historic fill material were detected at concentrations above Tiered Approach to Corrective Action Objectives (TACO) Tier 1 ingestion exposure route soil remediation objectives (SROs). In addition, total characteristic leaching procedure (TCLP) lead was detected above toxicity characteristic hazardous waste levels in two separate areas. These two separate areas will be addressed in the Remedial Action Plan (RAP) to be prepared for this property.



- b) **AOC II – Potential Transformer Release (Former REC #5):**  
PNA constituents and polychlorinated biphenyls (PCBs) assumed to be associated with the historic transformer release were at concentrations above TACO Tier 1 ingestion exposure route SROs. PCBs concentrations did not exceed hazardous levels. In addition, in this same area, vinyl chloride was detected in one soil at a concentration above the TACO Tier 1 ingestion exposure route SRO. The potential source of the vinyl chloride is not known.
  - c) **AOC III – Abandoned 2,000-gallon Gasoline UST (Former REC#9):**  
Benzene was detected in the southeast portion of the subject property above the TACO Tier 1 soil inhalation exposure route.
  - d) **AOC IV – Fill Material at the Forsyth Building (Former REC #20):** PNA constituents and total lead were detected at concentrations above TACO Tier 1 ingestion exposure route SROs.
  - e) **AOC V – Former Bulk Oil Storage (Former REC #11):**  
PNA constituents were detected at concentrations above TACO Tier 1 ingestion exposure route SROs. As requested by the Illinois Environmental Protection Agency (Illinois EPA), total petroleum hydrocarbon (TPH) samples were collected during the Stage 2 Investigation. TPH was detected at a concentration above the soil attenuation capacity of 2,000 mg/kg. This area will be addressed in the Remedial Action Work Plan to be prepared for this property.
6. The total petroleum hydrocarbon and the sum of the concentrations of constituents detected in samples collected during site investigation activities was not above the minimum soil attenuation capacity of 2,000 mg/kg, except soil boring B-50 located in the northern parking area.
  7. No constituent was detected above toxicity characteristic hazardous levels except toxicity characteristic leaching procedure (TCLP) lead found in the fill material on the east and west sides of the middle section of the subject property building.
  8. The groundwater results of water samples collected from both permanent groundwater monitoring wells and groundwater grab samples indicated no evidence of dissolved phase contaminants have been identified in the water contained in the fill material. Based on this data, it does not appear these compounds will ever leach into water beneath the subject property. Therefore, the migration to groundwater pathway will be excluded in the Remedial Action Work Plan.
  9. The subject property meets the criteria for Class II Groundwater.



10. The areas containing constituents above the ingestion and/or inhalation SROs will be covered with an engineered barrier. This engineered barrier will be used to exclude the ingestion and inhalation pathways at the subject property. Further discussion on the engineered barrier will be presented in the Remedial Action Work Plan.
11. Based on the information presented in this report, Clayton requests approval for the soil remediation objectives based on the most stringent inhalation or ingestion exposure route TACO Tier 1 SROs for the following compounds:

<u>Compound</u>	<u>Remediation Objective</u>
a) Benzene	1,600 (µg/kg)
b) Vinyl Chloride	1,100 (µg/kg)
c) Benzo(a)anthracene	8,000 (µg/kg)
d) Benzo(b)fluoranthene	8,000 (µg/kg)
e) Benzo(k)fluoranthene	78,000 (µg/kg)
f) Benzo(a)pyrene	800 (µg/kg)
g) Indeno(1,2,3-cd)pyrene	8,000 (µg/kg)
h) Dibenzo(a,h)anthracene	800 (µg/kg)
i) Naphthalene	1,800 (µg/kg)
j) Arsenic	61 (mg/kg)
k) Lead	400 (mg/kg)

Clayton, on behalf of SiPi Metals, respectfully requests that the Illinois EPA Site Remediation Program (SRP) approve of the SROs in this report.



## **1.0 INTRODUCTION**

SiPi Metals Corporation (SiPi) retained Clayton Group Services, Inc. to prepare this submittal to the Illinois Environmental Protection Agency (Illinois EPA) Site Remediation Program (SRP) for the SiPi property at 1720 North Elston Avenue in Chicago, Cook County, Illinois (subject property) to present the results of the Comprehensive Investigation of the subject property and to obtain Illinois EPA approval of remediation objectives. A site location map is provided as Figure 1.

### **1.1 REPORT ORGANIZATION**

This report has been prepared in accordance with the guidelines of the Illinois EPA SRP (35 Illinois Administrative Code [IAC] 740) and is a compilation of two SRP Reports: the Comprehensive Site Investigation (SI) Report (Section 2.0) and the Remedial Objectives (RO) Report (Section 3.0). Following these report sections are Conclusions (Section 4.0) and References (Section 5.0).

### **1.2 PURPOSE**

The purpose of the SI portion of this report is to identify all recognized environmental conditions (RECs) and related contaminants of concern at the subject property. The purpose of the RO portion of this report is to establish the remediation objectives for the identified contaminants of concerns.

### **1.3 SCOPE OF WORK**

The scope of work at the subject property consisted of the following: (1) a Phase I Environmental Site Assessment (ESA) prepared by Clayton; (2) a Phase II Environmental Site Investigation by Clayton to assess subsurface conditions in the vicinity of the RECs



identified in the Phase I ESA; (3) development of remediation objectives (SROs) based on investigation data; and (4) preparation and submittal of the required SI and RO reports to the Illinois EPA SRP.

Clayton's investigation activities, including the preparation of this report, were performed under the direction of Mr. John Rohr, P.E., Senior Project Engineer for Clayton. All work performed by Clayton was completed in accordance with the Illinois Environmental Protection Act, 35 IAC 740 and 742, and generally accepted engineering practices. The completed SRP Form DRM-2, including the P. E. Certification, is provided in Appendix A.

## **2.0 COMPREHENSIVE SITE INVESTIGATION REPORT**

The SI Report consists of the site characterization (Section 2.1), a review of previous environmental reports (Section 2.2), the results of Clayton's Phase II assessment (Section 2.3), a discussion of analytical results (Section 2.4), and an endangerment assessment (Section 2.5). The Phase II ESA was designed to determine the nature, concentration, direction, rate of movement, extent of contaminants of concern, and significant physical features of the subject property. A photographic log of subject property activities is provided in Appendix B.

### **2.1 SITE CHARACTERIZATION**

#### **2.1.1 Site Location and Description**

The subject property is used for brass and bronze smelting and metals refining, and is located on approximately 6.5 acres in an industrial setting in Chicago. The subject property is currently developed with seven buildings constructed at various times, dating from at least 1910. SiPi Metals has conducted similar smelting and metal recovery operations on the property since the 1930s. The planned short-term use for the subject property is continued operation as a smelter and metals refinery; long-term plans are to potentially demolish the buildings prior to sale of the property. The Howard Medical Company Building at 1690 North Elston is not currently owned by SiPi Metals but is being considered for purchase. The Howard Medical building will be added to the subject property as part of seeking a comprehensive NFR letter when the property has been acquired. This property contains an additional approximate ½ acre of land. A site features map is provided in Figure 2.



### 2.1.2 Site History

The following history of the subject property was obtained from the Phase I ESA for the subject property (prepared by Clayton on August 9, 2004). In 1910, the property was in industrial use with a foundry, a Portland cement manufacturing facility, and a brewery.

The property subsequently contained uses including a bulk fuel oil transfer station, a cement warehouse, a railroad yard, a locomotive house, piano and cabinet manufacturing, and a small portion originally in residential use. SiPi Metals was founded in 1905 producing bronze and brass alloys. Precious metals refining began onsite in 1969.

### 2.1.3 Surrounding Land Use

The area surrounding the subject property generally consists of industrial properties. The uses and features of adjoining properties are described below.

- North:** CMSP&P Railroad tracks, beyond which are industrial buildings.
- East:** North Elston Avenue with two large vacant industrial buildings beyond.
- South:** Large industrial buildings adjoin the Besly and Forsyth buildings.
- West:** The CMSP&P railroad tracks, beyond which is the I-90/94 (Edens) expressway.

Figure 2 illustrates the surrounding land use.

### 2.1.4 Physiography and Topography

A review of the United States Geological Survey (USGS) Chicago Loop Quadrangle, Illinois 7.5 minute series topographic map indicates the subject property is located in the Southwest  $\frac{1}{4}$  of Section 32 Township 40 North, Range 14 East in the east central section of the City of Chicago, Cook County, Illinois. The subject property is located approximately 590 feet above mean sea level. Topographic relief in the area and



surrounding the subject property decreases in a general easterly direction toward the North Branch of the Chicago River. The subject property is located in the Chicago Lake Plain subdivision of the Great Lakes Section of the Central Lowland Province Physiographic Region of Illinois, according to *Summary of the Geology of the Chicago Area* (Willman 1971), published by the Illinois State Geological Survey (ISGS).

### 2.1.5 Geology and Hydrogeology

According to *Summary of the Geology of the Chicago Area*, the subject property is located in the Carmi Member of the Equality Formation. The deposits are largely deep-water sediments found on flat areas of lake basins. The deposits are predominantly silt with beds of fine sand and clay. The depth to bedrock immediately below the subject property is unknown. The unconsolidated sediments of the area are underlain by dolomite bedrock belonging to the Silurian Niagaran Formation.

The subject property is located in an area designated "E" on the ISGS circular *Potential for Contamination of Shallow Aquifers in Illinois* Plate I (Berg et al., 1984). "E" soils are identified as uniform, relatively impermeable silty or clayey till at least 50 feet thick with no evidence of interbedded sand and gravel. The soil borings discussed below Clayton supports that the subject property is within the "E" area.

Freedom of Information (FOIA) requests were submitted to the Illinois State Water Survey (ISWS), ISGS, the Illinois EPA Department of Public Water Supply, the Illinois Department of Public Health (IDPH), Cook County Department of Public Health, and the Chicago Department of Water Management to obtain information regarding wells and public water supply near the subject property. According to information received from the IDPH, the Cook County Department of Public Health, and the Chicago Department of Water Management, no information was found regarding the subject property and the surrounding property. The Illinois EPA Department of Public Water Supply indicated the



subject property is outside a 2,500 feet radius from a community water supply. Well log information received from the ISGS indicated 4 wells are located within 1,000 feet of the subject property boundaries. The closest well is approximately 600 feet from the northwest property boundary. The well is a monitoring well and is not used for potable reasons. As of the date of this report, Clayton has not received copies of logs from the ISWS. An updated well location map with the ISWS well logs will be included in the Remedial Action Plan (RAP). A map showing the approximate locations of wells within 1,000 feet; copies of the well information/boring logs; and the responses to the Freedom of Information Act (FOIA) requests are included in Appendix C.

Clayton advanced 61 soil borings on the subject property to depths up to 16 feet below ground surface (bgs). At most locations, the subject property is underlain by fill materials that range in thickness from 1 to 10 feet bgs. The location of the soil borings is depicted in Figure 3. Fill materials generally include sand, gravel, brick, concrete, building debris, and silty clays. Native subsurface deposits below fill materials generally consist of brown and gray silty clays extending to the bottom of all of the borings. Cross-sections depicting site subsurface features, including geologic conditions and sampling locations, are provided in Figures 4A, 4B, and 4C.

Water was encountered in most soil borings, but the water was confined to the fill materials. This water likely represents surface water infiltration of the fill material and not a groundwater table. A description of the subject property geology is provided on the boring logs in Appendix D. Figure 5 shows the relative groundwater elevations and groundwater flow direction based on the water levels collected from the monitoring wells at the subject property.

Based on the local geology in the vicinity of the subject property, the area is underlain by Class II Groundwater. The Class II Groundwater designation is based on the following:



- Groundwater is located in the fill material at depth of 2 to 5 feet bgs.
- The subject property is not located within a minimum setback zone of a well that serves as a potable water supply well.
- The subject property is underlain by at least 50 feet of silty clay/clayey silt glacial till (i.e., "E" designated) based on the Berg Map. Borings drilled at the subject property support information presented on the Berg Map.
- Based on borings drilled at the subject property, the area is not underlain by sandstone 10 feet or more in thickness, or fractured carbonate 15 feet or more in thickness.
- In addition, the City of Chicago has entered into a Memorandum of Understanding (MOU) with the Illinois EPA that prohibits the use of groundwater within the city limits. This MOU excludes the groundwater ingestion exposure route.

Based on hydraulic conductivity obtained during slug testing on the monitoring wells at the subject property, the fill material containing groundwater has a hydraulic conductivity of  $6.26 \times 10^{-3}$  cm/sec to  $1.65 \times 10^{-4}$  cm/sec. Since the groundwater at the subject property is generally contained in the fill material at the subject property, and in all cases is less than 10 feet bgs, the groundwater meets the definition of Class II groundwater as defined by Illinois Administrative Code (IAC) 620.

The nearest body of surface water in the vicinity of the subject property is the North Branch of the Chicago River (approximately 1,500 feet northeast).

#### **2.1.6 Potential Migration Pathways and Exposure Routes**

The potential migration pathways, based on the subject property characterization, consist of vapor migration along subsurface utilities, leaching of contaminants from soil into groundwater, and groundwater transport. The potential exposure routes, based on the subject property characterization, consist of ingestion of soil and inhalation of vapors.



Based on groundwater sampling information collected at the subject property, no evidence of dissolved phase contaminants have been identified in the water contained in the fill material. The fill material, which contains residual chemical compounds, has been in contact with the water within the fill material for a relatively long time period, in most cases more than 80 years. Based on the groundwater results of water samples collected from both permanent groundwater monitoring wells and groundwater grab samples, none of the compounds detected in the soil/fill samples have leached into the groundwater. Based on this data, it does not appear that these compounds will ever leach into water beneath the subject property. Therefore, the migration to groundwater pathway has been excluded. The source of drinking water for the City of Chicago is municipal water obtained from Lake Michigan. In addition, the City of Chicago has an ordinance that prohibits groundwater use, and a MOU with the Illinois EPA stating groundwater within the city limits cannot be used for consumption.

#### **2.1.7 Current and Future Planned Property Use**

The subject property is currently operating as a smelter and metals refinery. The planned short-term use for the subject property is continued operation as a smelter and metals refinery; long-term plans potentially include demolition of the existing structures and commercial redevelopment of the subject property.

### **2.2 PREVIOUS ENVIRONMENTAL REPORTS**

#### **2.2.1 Phase I ESAs**

Clayton's Phase I ESA report dated August 9, 2004 incorporated all of the previous Phase I ESAs performed at the subject property. These previous assessments consisted of the following reports: Warzyn Engineering Inc., December 1989; Carlson, Knight, Kudrna, Inc.(CKK), May 21, 1990; Montgomery Watson Americas, Inc., June 1995;



STS Consultants, Inc., April 10, 2003, James FitzGerald Associates, May 24, 1996. All of the information presented was taken into consideration in preparation of the conclusions and identification of potential RECs in Clayton's Phase I ESA report.

Based on information contained in Clayton's Phase I ESA, the following RECs were identified:

**Main Building 1720 Elston, North Section**

1. An area in the northeast corner of the building was formerly used to process metals out of spent acidic plating solutions (a process now occurring at the south end of the building – refer to REC #9). The area was reportedly bermed and sealed for containment but has never been evaluated.

**Main Building 1720 Elston, Middle Section**

2. A 9,000-gallon heating oil underground storage tank (UST) is situated near the center of the middle building. The tank reportedly consists of a railroad tank car. This tank was suspected to have been leaking. It was removed from service and filled with pea gravel in approximately 1980. This UST had underground lines present that directed fuel oil to the Taylor Baghouse. The lines were also suspected to have been leaking.
3. Historic foundry operations were conducted in this portion of the building. It is possible there is metal slag and/or residual metal dust onsite because of this operation.
4. Middle section of main building was brought up to dock height with unknown fill reported to contain cinders. Perched water under this part of the building is reported to have come from leaky quench tank pits and machine pits, and may contain metals. A machine pit under the pouring conveyor equipment was reported to be leaking wash water from cooling the ingots to the subsurface as well. In addition, a one-ton electric induction furnace has a deep-water pit and associated deeper trough (~20 to 25 feet deep). This system would have manufactured an alloy with up to 10% chromium content. The trough was reported to have been leaking prior to its removal from service.
5. SiPi personnel reported that, approximately 15 years ago, there had been a transformer explosion in the group of four ComEd transformers located on the western roof of the middle section of the building. Oils were reported to have run



down the gutters and into the storm drains to the subsurface storm sewer system. It is not known if the oil released contained polychlorinated biphenyls (PCBs).

6. A scrap metal briquetter is located in the northwest portion of this building section. The equipment contains 1,200 gallons of hydraulic oil and is located over a pit to recycle the dripped or over-sprayed oils. The integrity of this pit is unknown.
7. A room containing two rotary screw air compressors is present in the south end of this section of the building. One of these units was placed in a recessed pan, and both displayed significant oil staining of the surrounding concrete.
8. Two hydraulic units serve the pouring conveyor located along the east wall of the building. Oily staining was noted in the area, and blackened bricks were observed on the exterior of the building in this area.

#### **Main Building 1720 Elston, South Section**

9. A former 2,000-gallon gasoline UST is present underneath the southern portion of the main building in the liquids storage room of the cyanide area. The UST was reported to have been removed from service and filled with pea gravel in 1981.
10. A gasoline UST was formerly located at the west end of the southern wall of the main building. A dispensing pump for this UST was located at the southern end of the western wall on a concrete pad that is still present. This UST was removed in 1990 at the time the two 10,000-gallon fuel oil USTs (see REC #15) were removed. No closure documentation was available for review.

#### **North Side of Property**

11. Formerly two heating oil above ground storage tanks (ASTs) operated as part of a bulk fuel oil transfer station. The oil pump house was situated west of the ASTs and was reportedly used to control transfer of oil from railcars to the ASTs. The original tanks were situated along the northeastern property boundary. The tanks were subsequently relocated to the north central portion of the property and were secured within concrete containment (walls and floor). The ASTs were decommissioned in 1973 and cut in half; the shells are currently used for storage sheds along the western property line.

#### **West Side of Property**

12. A slag pile was reported to have formerly been present along the western wall of the Taylor baghouse. The slag was removed prior to paving of this area circa 1974.



13. A brick-lined storm sewer (installed circa early-1900s) runs the length of the west side of the property. This sewer collects storm water from the subject property only. This water is subsequently pumped to an onsite concrete-lined settling reservoir where sediment that contains residual concentrations of metals is recycled at the facility. It is possible the sewer and/or the soils/fill material surrounding this sewer contain residual metals concentrations.
14. Two 10,000-gallon fuel oil USTs were present in the area north of the Taylor Baghouse Building, currently occupied by a propane AST. These tanks were installed in 1974 and reportedly removed in 1990. There is no record of a release from these two tanks; however, an underground pipeline connected these two tanks to the building to the east. It is reported the pipeline is still present. No closure documentation was provided to Clayton for review.
15. The area north of the Wheelabrator Baghouse was formerly used to load flue dust from the smelter into rail cars.
16. Current and former railroad tracks are present within easements on the western portions of the subject property that have been present since at least 1914.

#### **Besly Building – 1660 N. Besly Court**

17. The former operations in this building reportedly included the use of paints and solvents.
18. The building contains two freight elevator systems. One system has been disassembled and the piston is still in place, but the shaft could not be observed for evidence of staining or leaks. The other elevator is still in use and displayed oily staining around the system's hydraulic reservoir, as well as a significant quantity of dark liquid in the base of the elevator shaft.
19. A "locomotive warehouse" was situated on this property in a 1914 Sanborn Fire Insurance Map. It is not known if this warehouse was used to store locomotives or used to conduct maintenance activities.

#### **Forsyth Building – 1672 North Elston Avenue**

20. This building was constructed on top of several feet of fill material to raise the truck doors to dock height. The fill beneath the building is of unknown origin.



**Howard Medical Building - 1690 North Elston Avenue**

21. A hydraulic freight elevator is present in the building. The hydraulic reservoir in the basement was observed to have stained concrete on the floor, which may have been moisture or could have been spilled oils.

A copy of Clayton's Phase I ESA was previously submitted to the Illinois EPA SRP.

**2.3 CLAYTON'S PHASE II ASSESSMENT**

Clayton conducted an initial Phase II Investigation (Stage 1) for the subject property in August 2004. The Stage 1 investigation was performed to assess whether the RECs identified in the Phase I ESA have impacted the subject property. The Stage 1 investigation included the following activities: installing soil borings for collection of soil and groundwater grab samples; installing monitoring wells for groundwater sample collection and groundwater flow information; and conducting hydraulic conductivity testing of the monitoring wells.

After determining the RECs that needed further delineation, Clayton and SiPi met with Illinois EPA SRP representatives to discuss the next portion of the Phase II investigation. In September 2004, Clayton conducted the second stage of the Phase II Investigation (Stage 2). The investigation, which included soil and groundwater grab samples from soil borings, was conducted to delineate impacts discovered during the first stage of the Phase II ESA at the subject property and to address any additional issues the Illinois EPA had identified. The Illinois EPA issued a letter on September 24, 2004, which summarized the discussion at the September 14, 2004 meeting. A copy of this letter is included in Appendix E.

The Phase II assessment work performed by Clayton (for both the Stage 1 and Stage 2 portions of the investigation) is described in detail in the following sections. A summary



of the number of soil samples and groundwater grab samples, along with the analyses is presented in Table 1.

### **2.3.1 Geoprobe® Borings**

From August 9 through August 13, 2004, Clayton advanced 21 soil borings (B-1 through B-10, B-12, B-13, B-15, B-16, B-18 through B-20, and B-22 through B-25) on the subject property using a hydraulic push method during Stage 1 of the Phase II investigation. On September 28 through September 30, 2004, 34 soil borings (B-29 through B-62) were advanced during the implementation of the second stage of the Phase II investigation. Hydraulics was used to advance a 4-foot-long sampling tube fitted with disposable acetate liners in the soil. Upon completion, the soil borings were backfilled to ground surface using bentonite. Soil boring locations are presented in Figure 3. A summary of the number of soil samples and groundwater grab samples, along with the analyses, is presented in Table 1.

All drilling and sampling equipment was decontaminated, prior to and after each boring and between each sampling interval, using a detergent and distilled water wash followed by a distilled water rinse. All investigation-derived waste was containerized and secured in labeled 55-gallon drums.

#### **2.3.1.1 Soil Sample Collection**

Soil samples were initially scanned for organic vapors upon retrieval using a Photovac® photoionization detector (PID) equipped with a 10.6 electron volt (eV) probe. The PID, calibrated to an isobutylene standard, measures total concentrations of organic vapors. The PID cannot identify or quantify specific constituents. Discreet soil sampling was performed continuously from ground surface to the completion depth of each boring. Soil samples collected were typically split into two portions; one portion was placed in a



sealed plastic bag for headspace analysis with the PID and geologic classification, and the other portion was placed into clean laboratory-provided containers for potential laboratory-chemical analysis. The first sample was used to gauge the degree of soil impact if present in the upper portion. The second sample, if groundwater was not encountered, was placed on hold (e.g., not tested) at the laboratory in the event the first sample still contained residual contaminants above the acceptable levels. A Clayton geologist used the Unified Soil Classification System to describe and classify the soil samples. The soil sample descriptions and the field screening results were recorded on boring logs (Appendix D).

The soil samples were analyzed for the constituents presented in Table 1. The soil samples were submitted for analysis to First Environmental Laboratories (First Environmental) located in Naperville, Illinois. United States Environmental Protection Agency (USEPA) SW-846 Method 5035/8260B was used for volatile organic compounds (VOCs); benzene, toluene, ethylbenzene, xylenes (BTEX); and methyl tertiary-butyl ether (MTBE). Method 8270C was used for polynuclear aromatics (PNAs) and semi-volatile organic compounds (SVOCs). Modified Method Modified 8015B was used for total petroleum hydrocarbons (TPH). Method 8015B was used for all target, total, and total characteristic leaching procedure (TCLP) metals except cyanide and mercury. Method 7470A was used for mercury analysis. Method 9014 was used for total cyanide, and Method 8082 was used for polychlorinated biphenyls (PCBs).

#### **2.3.1.2      *Groundwater Grab Sample Collection***

The purpose of the groundwater grab samples was to facilitate collection of groundwater samples from beneath the building from areas where installation of permanent monitoring wells would be difficult or impractical due to the ongoing operations at the facility. Groundwater samples were collected from five soil borings (B-2, B-3, B-6, B-8, and B-22) during the initial Phase II investigation. Groundwater samples were collected by

placing a temporary 1-inch-diameter screen and riser in the borehole and retrieving the water using a low-flow peristaltic pump. The water was directly pumped into laboratory-provided containers. The first water sample was collected for VOC analysis using preserved sample vials that were filled with as little agitation as possible. Other sample bottles were filled and preserved as specified by the laboratory. Metals samples were filtered using a 0.45-micron in-line filter prior to being collected in a laboratory-provided bottle. Sample containers were labeled and placed in an iced cooler pending laboratory analysis.

Based on results of the groundwater grab samples collected during the first stage of the investigation, groundwater samples were collected from two additional soil borings (B-29 and B-30) during the second stage of the Phase II investigation. Groundwater was collected from a one-inch temporary well using a peristaltic pump. Two samples were collected at each location. One sample was directly collected in a specified laboratory container. The second sample was field-filtered with a 0.45-micron in-line filter prior to being collected in a laboratory-provided container. Sample containers were labeled and placed in an iced cooler pending laboratory analysis.

Groundwater grab samples were collected from the soil borings for the constituents associated with the RECs presented in Table 1. The groundwater samples were submitted to First Environmental for VOC, PNA, BTEX, and/or total metal analysis depending on the constituents of concern for each REC.

### **2.3.2 Monitoring Wells**

#### **2.3.2.1 Installation and Surveying**

From August 9 through August 11, 2004, Clayton advanced six soil borings (B-11, B-14, B-17, B-21, B-27, and B-28) using a Diedrich D-120 drill rig. These soil borings were



advanced using a continuous flight hollow stem augers. Soil samples were collected using a standard 2-inch split barrel sampler driven by a 140-pound hammer. These borings were completed as 2-inch-diameter polyvinyl chloride (PVC) monitoring wells and located in the following areas:

- Monitoring Well MW-1 (B-27) was completed on the western side of the subject property to assess the upgradient property boundary.
- Monitoring Well MW-5 (B-28) was installed on the east side of the subject property to access the downgradient property boundary.
- Monitoring Well MW-2 (B-14) was installed in the north central portion of the subject property near the brick lined sewer.
- Monitoring Well MW-4 (B-17) was installed on the south central portion of the property near the former flue dust loading area.
- Monitoring Wells MW-3 (B-11) and MW-6 (B-21) were completed as monitoring wells in the north and south portions of the subject property, respectively.

The monitoring well locations are presented in Figure 3.

On August 19, 2004, Clayton surveyed the monitoring wells and collected an initial round of groundwater levels. Groundwater was encountered at depths ranging from 2.58 to 11.26 feet bgs. Based on the top of casing elevations and groundwater levels, groundwater flow direction is towards the east/northeast toward the North Branch of the Chicago River. Groundwater flow was determined using the elevations from monitoring wells MW-1, MW-3, and MW-5. Anomalous groundwater elevations, due to the presence of underground utilities and building footings, were collected from monitoring wells MW-2, MW-4, and MW-6. Therefore, the groundwater elevation data collected from monitoring wells MW-2, MW-4, and MW-6 were not included in the determination of groundwater flow. Groundwater elevations and flow direction are presented in Figure 5.



### **2.3.2.2    *Development and Groundwater Sampling***

Prior to sample collection, each well was developed by removing ten borehole volumes and obtaining stable water quality parameters, or by bailing the well dry twice using a disposable bailer. The wells were developed to restore the natural permeability of the formation adjacent to the borehole; remove clay, silty and other fines from the filter pack and well screen so that water samples will not be abnormally turbid or contain undue suspended matter; and remove contaminants from the well, filter pack, and formation material introduced during drilling. The newly constructed wells were allowed to stabilize for a minimum of 48 to 72 hours before sampling was performed.

The wells were sampled using a low-flow technique using an adjustable peristaltic pump at a low setting to minimize sediment in the groundwater samples. The wells were purged with minimal drawdown until water quality parameters stabilized. Samples were then collected for total metals and PNAs. The peristaltic pump was adjusted to a high setting, and three well volumes were then removed until water quality parameters had stabilized and/or (as in the case of MW-3) the well was bailed dry using a disposable bailer prior to sample collection. The VOC samples were then collected using a disposable bailer and collected in preserved sample vials. Sample containers were labeled and placed in an iced cooler. The samples were submitted to First Environmental for laboratory analysis.

## **2.4    DISCUSSION OF ANALYTICAL RESULTS**

### **2.4.1    Soil and Groundwater Grab Sample Analytical Results**

Under the Tiered Approach to Corrective Action Objectives (TACO) approach, the compounds detected in soil are evaluated based upon the risk presented by their concentration levels. For soil, the risks presented are: (1) vapors from contaminated soils



may be inhaled; (2) contaminated soil may be ingested; or (3) soil contaminants may migrate to groundwater and be ingested through drinking the water. Different soil remediation objectives (SROs) apply to each of the "exposure routes," which is the phrase used in TACO to describe the different ways contamination presents risks. Soil sample results were compared to the Illinois EPA's TACO Tier 1 Commercial/ Industrial SROs and (for the leachable metals only) characteristic toxicity hazardous waste thresholds from 40 CFR Part 261.24. For each metal, the hazardous waste threshold is higher than the Tier 1 Commercial/Industrial SROs; thus, TCLP data that is below the SROs is also below hazardous waste thresholds. Groundwater results from samples collected from the groundwater monitoring wells and groundwater grab sample results were compared to TACO Tier 1 Class II groundwater remediation objectives (GROs). TPH values were compared to the soil attenuation capacity default values specified in Illinois EPA's TACO Section 742.215.

VOCs, PNAs, SVOCs, TPH, total and TCLP metals, and PCBs were detected in soil samples collected at the subject property. The soil analytical results are summarized in Table 2. The groundwater grab sample analytical results are summarized in Table 3. The analytical laboratory reports are provided in Appendix F.

#### **2.4.1.1      *Former Plating Solution Process Area (REC #1)***

Total and TCLP metals were detected in soil boring B-1 A (2 to 4 feet) in the former plating solution process area. However, no total metal or TCLP metal constituents were detected at concentrations above TACO Tier 1 SROs.

Based on the results of the Phase II investigation, no contaminants of concern were detected above TACO Tier 1 SROs in association with this REC. No further investigation is warranted.

#### **2.4.1.2      9,000-Gallon Abandoned Heating Oil UST (REC #2)**

No constituent was detected in either soil sample collected from soil boring B-2, located near the 9,000-gallon heating oil UST, except benzo(a)anthracene. However, benzo(a)anthracene was detected at concentrations below TACO Tier 1 SROs.

PNAs were detected in groundwater grab samples GW-2. The concentrations of benzo[a]anthracene, benzo[b]fluoranthene, and benzo[k]fluoranthene identified at GW-2 were above their respective Class II GROs.

Soil boring B-29 was advanced east-northeast of the 9,000-gallon heating oil UST during Stage 2 of the Phase II investigation to verify the presence of PNA compounds in the groundwater in the vicinity of GW-2. Two groundwater grab samples were collected for PNAs. One sample was directly collected in a specified laboratory container. The second sample was field- and laboratory-filtered to remove any sediment. The results of the groundwater grab sample collected at B-29 indicated PNAs were detected only in the unfiltered sample collected (GW-29U). However, no PNA was detected above TACO Tier 1 GROs in either the unfiltered and filtered sample. Therefore, Clayton concluded that residual PNAs have not migrated into the shallow water contained in the fill material beneath the existing facility. Because no contaminants of concern were detected above TACO Tier 1 SROs and because residual PNAs have not migrated into shallow groundwater, no further investigation is warranted.

#### **2.4.1.3      Historic Foundry/Unknown Fill Material (REC #3 & REC #4)**

PNAs, total metals, and TCLP metals were detected in soil samples B-3A, B-5A, B-6A, and B-7A located in the historic foundry and fill material location. Naphthalene was detected above Tier 1 inhalation SROs in soil samples B-6A and B-7A.

Benzo(a)anthracene, benzo(b)fluoranthene, benzo(k)fluoranthene, benzo(a)pyrene, indeno(1,2,3-cd)pyrene, and dibenzo(a,h)anthracene were detected at concentrations

above the TACO Tier 1 ingestion exposure route SROs in B-7A. Additionally, benzo(a)anthracene, benzo(b)fluoranthene, benzo(a)pyrene, indeno(1,2,3-cd)pyrene, and dibenzo(a,h)anthracene were also detected above TACO Tier 1 migration to groundwater ingestion exposure route SROs.

Total arsenic concentrations above ingestion SROs was detected in soil sample B-5A (4 to 6 feet). Total lead was detected at concentrations well above TACO Tier 1 ingestion exposure route SROs in soil samples B-5A (4 to 6 feet), B-6A (2 feet), and B-7A (1 to 2 feet). TCLP barium was detected at concentrations above groundwater ingestion SROs in B-7A (1 to 2 feet). TCLP lead was detected at concentrations above TACO Tier 1 groundwater ingestion SROs in soil borings B-5A (4 to 6 feet), B-6A (2 feet), and B-7A (1 to 2 feet). Additionally, TCLP lead concentration in soil boring B-7A (1 to 2 feet) was detected at 21.8 milligrams per liter (mg/L), which is above the toxicity characteristic hazardous waste threshold (5.0 mg/L).

Total metals and PNAs were detected in groundwater grab sample GW-3 collected from soil boring B-3. Total lead was also detected at concentrations above TACO Class II GROs in groundwater grab sample GW-3. However, no PNA constituent was detected above TACO Tier 1 Class II GROs. During the second stage of the Phase II investigation, groundwater grab sample GW-30 was collected downgradient of B-3. Two samples were collected for total lead. One sample was directly collected in a specified laboratory container. The second sample was field- and laboratory-filtered to remove any sediment. Results of the analysis indicated that the unfiltered sample GW-30U contained concentrations of total lead above the TACO Tier 1 Class II GRO. The filtered sample GW-30F did not have concentrations of total lead above laboratory detection. Therefore, Clayton concluded that residual lead concentrations have not migrated into the shallow water contained in the fill material beneath the existing facility.



During Stage 2 of the Phase II investigation, soil samples B-36 and B-37 located near B-5 were collected to determine horizontal delineation of total lead, TCLP lead, and total arsenic above TACO Tier 1 SROs. Soil samples from B-38 at 9 feet bgs were collected to determine the vertical extent of arsenic and lead contamination and address the additional analysis requested by the Illinois EPA. The results of Stage 2 of the Phase II investigation indicated no metals constituent was detected in any of the soil samples except B-37/5'. Total lead was detected at a concentration above the TACO Tier 1 ingestion exposure route SRO in soil sample B-37/5'.

Soil samples B-39, B-40, and B-41 were collected to determine horizontal delineation of the total lead and naphthalene near soil sample B-6. B-42 was collected to determine the vertical extent of lead and naphthalene contamination and to address the additional analysis requested by the Illinois EPA. Naphthalene was detected above laboratory detection limits in soil samples collected from B-40 and B-41. However, no naphthalene concentration exceeded the TACO Tier 1 SROs. Metals were detected in the soil sample collected from B-42/9'; however, no metal constituent was detected at concentrations above TACO Tier 1 SROs. Total lead was detected at concentrations above the TACO Tier 1 ingestion exposure route SRO in B-39/2', B-40/2', and B-41/2'.

During the second stage of the Phase II investigation, soil samples B-29, B-43, B-44, and B-45 were collected to determine horizontal delineation of the TCLP lead above hazardous levels and/or PNAs near soil sample B-7. B-46 was collected to determine the vertical extent of lead and PNA contamination and to address the additional analysis requested by the Illinois EPA. No PNA constituent was detected at concentrations above TACO Tier 1 SROs except benzo(a)pyrene in the soil sample collected from B-43. Benzo(a)pyrene was detected above the TACO Tier 1 ingestion exposure route SRO in soil sample B-43/2'. No total metals constituent was detected above TACO Tier 1 SROs except total lead in the sample collected from soil boring B-45. Total lead concentrations exceeded the TACO Tier 1 ingestion exposure route SROs. TCLP lead was detected in



soil sample B-44/1.5' at a concentration above the TACO Tier 1 migration to groundwater SRO but below the toxicity characteristic hazardous waste threshold.

#### **2.4.1.4 Potential Transformer Release (REC #5)**

VOCs, PNAs, total and TCLP metals, and PCBs were detected in the soil sample B-4 located near the location of a potential transformer release. All PNAs were detected at concentrations below TACO Tier 1 SROs except benzo(a)anthracene, which was detected in soil boring B-4B (3 feet) at concentrations above ingestion SROs.

Total arsenic was detected at a concentration above TACO Tier 1 ingestion SROs in soil sample B-4B (3 feet). Total lead was detected at concentrations above TACO Tier 1 ingestion SROs in soil samples B-4A (1.5 feet) and B-4B (3 feet). Additionally, TCLP lead was detected in these soil samples at concentrations above the toxicity characteristic hazardous waste threshold.

PCBs (arochlor 1254) were detected at a concentration of 3.44 mg/kg above TACO Tier 1 ingestion SRO of 1.0 milligrams per kilogram (mg/kg) in soil sample B-4B (3 feet). It should be noted the detected concentration of PCBs is well below the hazardous waste threshold of PCBs, which is 50 mg/kg.

During the second stage of the Phase II investigation, soil samples B-32, B-33, B-34, and B-35 were advanced near B-4 to determine horizontal delineation of hazardous level TCLP lead and total arsenic, PNAs, and PCBs above TACO Tier 1 SROs. Soil samples from B-31 were collected to determine the vertical extent of contamination and to address the additional analysis requested by the Illinois EPA.

SVOCs were detected at concentrations above TACO Tier 1 SROs in soil samples B-31/3' and B-34/3'. Benzo(a) pyrene and dibenz(a,h)anthracene were detected at



concentrations above TACO Tier 1 ingestion SROs. Benzo(a)anthracene and carbazole were detected above TACO Tier 1 migration to groundwater exposure route in soil sample B-31/3'. Benzo(a)pyrene was detected at a concentration above the TACO Tier 1 ingestion exposure route SRO in soil sample B-34/3'.

No total metals concentration exceeded the TACO Tier 1 SROs except total lead in the soil sample collected at B-31. Total lead was detected at a concentration above the TACO Tier 1 ingestion exposure route SRO in soil sample B-31/3'. Analytical results indicated soil sample B-32/3' had concentrations of TCLP lead above the TACO Tier 1 migration to groundwater SRO, and B-34/3' had concentrations of TCLP lead above toxicity characteristic hazardous waste limits.

PCBs were detected at concentrations above the TACO Tier 1 ingestion exposure route SRO in soil samples B-31/3' and B32/3'. Due to the presence of PCBs above TACO Tier 1 ingestion SROs in soil sample B-32/3', soil sample B-54 was analyzed for PCBs to determine horizontal delineation to the west of B-4. PCBs were not detected above TACO Tier 1 ingestion exposure route SROs in soil sample B-54/4-6'.

#### **2.4.1.5 Potential Hydraulic Oil Release-Scrap Metal Briquetter (REC #6)**

PNAs, total metals, and TCLP metals were detected in soil sample B-5A (4 to 6 feet) located near the potential hydraulic oil release at the scrap metal briquetter. Total arsenic concentrations above ingestion SROs were detected in soil sample B-5A (4 to 6 feet). Total lead was detected at concentrations above TACO Tier 1 ingestion exposure route SROs. TCLP lead was detected at concentrations above TACO Tier 1 groundwater ingestion SROs in soil borings B-5A (4 to 6 feet).

The sample results establish the lack of impact from the potential hydraulic oil release. Accordingly, no further investigation of REC #6 is warranted. The second stage of the



Phase II investigation was conducted in this area to delineate metal concentrations above ingestion SROs in connection with RECs #3 and #4. See Section 2.4.1.3 for further information regarding the results of this investigation.

#### **2.4.1.6 Potential Oil Release from Compressors (REC #7)**

PNAs, total metals, and TCLP metals were detected in soil sample B-6A located near the potential oil release from compressors in the middle section of the Main building.

Naphthalene was detected above Tier 1 inhalation SROs in soil samples B-6A.

Total lead was detected at concentrations well above TACO Tier 1 ingestion exposure route SROs in soil samples B-6A (2 feet). TCLP lead was detected at concentrations above TACO Tier 1 groundwater ingestion SROs in soil borings B-6A (2 feet).

Total metals and PNAs were detected in groundwater grab sample GW-6. The concentrations of benzo[a]anthracene, benzo[b]fluoranthene, benzo[k]fluoranthene, chrysene, benzo[a]pyrene, indeno(1,2,3-cd)pyrene, and dibenzo(a,h)anthracene identified at GW-6 were above their respective Class II GROs. However, no total metal constituent was detected above TACO Tier 1 Class II GROs.

Soil samples B-39, B-40, and B-41 were collected to determine horizontal delineation of the total lead, TCLP lead, and naphthalene near soil sample B-6. B-42 was collected to determine the vertical extent of lead and naphthalene contamination and to address the additional analysis requested by the Illinois EPA. Additionally, a soil sample was submitted from soil boring B-39 for TPH analysis.

Naphthalene was detected above laboratory detection limits in soil samples collected from B-40 and B-41. However, no naphthalene concentration exceeded the TACO Tier 1 SROs. Metals were detected in the soil sample collected from B-42/9'; however, no metal constituent was detected at concentrations above TACO Tier 1 SROs. Total lead



was detected at concentrations above the TACO Tier 1 ingestion exposure route SRO in B-39/2', B-40/2', and B-41/2'. TPH was detected in soil sample B-39/10' at concentrations well below the soil attenuation capacity limit of 2,000 mg/kg for soils under 1 meter. Based on these sample results from the Phase II investigation, this REC is considered fully delineated and no further investigation is necessary. The second stage of the Phase II investigation was conducted in this area to delineate metal concentrations above ingestion SROs in connection with RECs #3 and #4. See Section 2.4.1.3 for further information regarding the results of this investigation.

#### **2.4.1.7      *Potential Hydraulic Oil Release-Pouring Conveyor (REC #8)***

PNAs, total metals, and TCLP metals were detected in soil sample B-7A located near potential hydraulic oil release from the pouring conveyor in the middle section of the Main building. Naphthalene was detected above Tier 1 inhalation SROs in soil sample B-7A. Benzo(a)anthracene, benzo(b)fluoranthene, benzo(k)fluoranthene, benzo(a)pyrene, indeno(1,2,3-cd)pyrene, and dibenzo(a,h)anthracene were detected at concentrations above the TACO Tier 1 ingestion exposure route SROs in B-7A. Additionally, benzo(a)anthracene, benzo(b)fluoranthene, benzo(a)pyrene, indeno(1,2,3-cd)pyrene, and dibenzo(a,h)anthracene were also detected above TACO Tier 1 migration to groundwater ingestion exposure route SROs.

Total lead was detected at concentrations well above TACO Tier 1 ingestion exposure route SROs in soil sample B-7A (1 to 2 feet). TCLP barium was detected at concentrations above groundwater ingestion SROs. TCLP lead was detected at concentrations above TACO Tier 1 groundwater ingestion SROs in soil borings B-7A (1 to 2 feet). Additionally, TCLP lead concentration in soil boring B-7A (1 to 2 feet) was detected at 21.8 mg/L, which is above the toxicity characteristic hazardous waste threshold (5.0 mg/L).

During the second stage of the Phase II investigation, soil samples B-29, B-43, B-44, and B-45 were collected to determine horizontal delineation of the TCLP lead above hazardous levels and/or PNAs near soil sample B-7. B-46 was collected to determine the vertical extent of lead and PNA contamination and to address the additional analysis requested by the Illinois EPA.

No PNA constituent was detected at concentrations above TACO Tier 1 SROs except benzo(a)pyrene in the soil sample collected from B-43. Benzo(a)pyrene was detected above the TACO Tier 1 ingestion exposure route SRO in soil sample B-43/2'. No total metals constituent was detected above TACO Tier 1 SROs except total lead in the sample collected from soil boring B-45. Total lead concentrations exceeded the TACO Tier 1 ingestion exposure route SROs. TCLP lead was detected in soil sample B-44/1.5' at a concentration above the TACO Tier 1 migration to groundwater SRO but below the toxicity characteristic hazardous waste threshold. Analysis at B-39 indicated TPH was found at concentrations below soil attenuation capacity limits.

Based on these sample results from the Phase II investigation, REC #8 is considered fully delineated and no further investigation is necessary. The second stage of the Phase II investigation was conducted in this area to delineate metal concentrations above ingestion SROs in connection with RECs #3 and #4. See Section 2.4.1.3 for further information regarding the results of this investigation.

#### **2.4.1.8      *Abandoned 2,000-Gallon Gasoline UST (REC #9)***

BTEX, total and TCLP metals were detected in soil boring B-8 located at the abandoned 2,000-gallon gasoline UST. However, no constituents were detected at concentrations above TACO Tier 1 SROs except benzene. Benzene was detected in soil sample B-8A (2 to 4 feet) at concentrations above the Tier 1 inhalation and groundwater ingestion exposure route.



Total metals were detected above laboratory limits in groundwater grab sample GW-8. However, no total metal constituent was detected above TACO Tier 1 Class II GROs.

#### **2.4.1.9      2,000-Gallon Gasoline UST-Removed (REC #10)**

No BTEX compounds were detected in the soil samples collected from soil boring B-9. However, a soil sample was collected at B-48 for MTBE as requested by the Illinois EPA. The results of the analysis indicated no MTBE concentrations were detected above the laboratory detection limits.

Based on the results of the Phase II investigation, no contaminants of concern were detected above TACO Tier 1 SROs in association with this REC. No further investigation is warranted.

#### **2.4.1.10      Former Bulk Oil Storage (REC #11)**

PNAs were detected in soil samples collected from B-10, B-11, and B-12 located near the former bulk oil storage area. Additionally, BTEX was detected above laboratory detection limits in B-11. However, no PNA constituent was detected at concentrations above TACO Tier 1 SROs in B-10. Benzo(a)pyrene was detected at a concentration above the TACO Tier 1 SRO in soil sample B-12A (2 to 4 feet). Naphthalene, benzo(a)anthracene, benzo(b)fluoranthene, benzo(a)pyrene, indeno(1,2,3-cd)pyrene, and dibenzo(a,h)anthracene were detected at concentrations above the TACO Tier 1 ingestion exposure route SROs in soil sample B-12A (4 to 6 feet).

At the request of the Illinois EPA, TPH was collected from soil borings B-50 and B-51 during the second stage of the Phase II investigation. TPH was found in B-50 at a concentration exceeding the soil attenuation capacity for soils below 1 meter presented in



Section 742.215 of TACO (2,000 mg/kg). TPH concentrations were below the soil attenuation capacity in the soil sample collected from B-51.

#### **2.4.1.11      *Former Slag Pile (REC #12)***

Total and TCLP metals were detected in soil borings B-13A (1.5 feet) and B-13B (3 feet) in the former slag pile area. However, no total metal or TCLP metal constituents were detected at concentrations above TACO Tier 1 SROs except the total lead and TCLP lead concentrations in soil sample B-13A (1.5 feet). Total lead was detected at concentrations above the soil ingestion SRO, and the TCLP lead concentration was above the TACO Tier 1 groundwater ingestion exposure route SRO.

During the second stage of the Phase II investigation, soil boring B-52 was advanced west of B-13A to further delineate total lead concentrations above the TACO Tier 1 soil ingestion SRO to the west. Analytical results indicated total lead concentrations were found above TACO Tier 1 soil ingestion SROs.

Based on these sample results from the Phase II investigation, REC #8 is considered fully delineated and no further investigation is necessary. The second stage of the Phase II investigation was conducted in this area to delineate metal concentrations above ingestion SROs in connection with RECs #3 and #4.

#### **2.4.1.12      *Brick-Lined Storm Sewer (REC #13)***

Total and TCLP metals were detected in soil boring B-14 located near the brick lined storm sewer. However, no total metal or TCLP metal constituent was detected at concentrations above TACO Tier 1 SROs. Based on the results of the Phase II investigation, no contaminants of concern were detected above TACO Tier 1 SROs in association with this REC. No further investigation is warranted.



#### **2.4.1.13      *Former 10,000-Gallon Heating Oil UST (REC #14)***

PNAs were detected in soil boring B-15A (2 to 4 feet) located at the location of the former 10,000-gallon heating oil UST. However, no PNA constituent was detected at concentrations above TACO Tier 1 SROs.

To address the Illinois EPA's request to collected TPH samples at former petroleum tank locations, soil boring B-54 was advanced near B-15 during the second stage of the Phase II investigation. TPH was detected at concentrations well below the soil attenuation capacity for soil below 1 meter.

Based on the results of the Phase II investigation, no contaminants of concern were detected above TACO Tier 1 SROs in association with this REC. No further investigation is warranted.

#### **2.4.1.14      *Former Flue Dust Loading Area (REC #15)***

Total and TCLP metals were detected in soil samples collected from borings B-16 and B-17 in the former flue dust loading area. Total lead was detected above the TACO Tier 1 soil ingestion SRO, and TCLP lead was detected above the TACO Tier 1 groundwater ingestion exposure route SRO in soil sample B-17A (1.5 feet).

Soil boring B-55 was advanced near B-17 to collect samples for SVOCs and target metals as requested by the Illinois EPA. Sample results indicated only total lead was detected above the TACO Tier 1 soil ingestion SRO. Based on these sample results from the Phase II investigation, REC #15 is considered fully delineated and no further investigation is necessary. The second stage of the Phase II investigation was conducted in this area to delineate metal concentrations above ingestion SROs in connection with RECs #3 and #4



#### **2.4.1.15 Railroad Tracks (REC #16)**

Total and TCLP metals were detected in soil samples collected from borings B-18, B-19, and B-20 located near the railroad tracks. Additionally, PNAs were detected in soil samples B-19 and B-20. No PNA, total metal, or TCLP metal constituents were detected at concentrations above TACO Tier 1 SROs except for TCLP lead in soil sample B-19A (0 to 2 feet) and total lead in soil sample B-20A (0 to 2 feet). TCLP lead was detected at concentrations above the TACO Tier 1 groundwater ingestion exposure route SRO in soil sample B-19A (0 to 2 feet). Total lead was detected at a concentration above the TACO Tier 1 ingestion SRO in soil sample B-20A (0 to 2 feet).

Soil borings B-56, B-57, and B-58 were advanced along the railroad tracks to delineate total lead concentrations on the western side of the property during the second stage of the Phase II investigation. Soil samples were analyzed for total lead. Total lead was detected in all soil borings above laboratory detection limits. However, only B-57/2' and B-58/2' had detections of total lead above the TACO Tier 1 ingestion SRO. Based on these sample results from the Phase II investigation, REC #16 is considered fully delineated and no further investigation is necessary. The second stage of the Phase II investigation was conducted in this area to delineate metal concentrations above ingestion SROs in connection with RECs #3 and #4.

#### **2.4.1.16 Potential Solvent Usage (REC #17)**

No VOC compound was detected in soil sample B-21 collected from the potential solvent usage area located near the Besly Building on the south side of the subject property.

Based on the results of the Phase II investigation, no contaminants of concern were detected above TACO Tier 1 SROs in association with this REC. No further investigation is warranted.



#### **2.4.1.17      *Potential Hydraulic Oil Release-Besly Building (REC #18)***

No PNA or BTEX compound was detected above TACO Tier 1 SROs in soil samples B-22 and B-23 located in the basement of the Besly Building near the hydraulic elevators.

Based on the results of the Phase II investigation, no contaminants of concern were detected above TACO Tier 1 SROs in association with this REC. No further investigation is warranted.

#### **2.4.1.18      *Former Locomotive Warehouse (REC #19)***

No PNA or VOC compound was detected in soil sample B-24 except naphthalene. Naphthalene was detected at a concentration below TACO Tier 1 SROs in soil sample B-24A (4 to 6 feet).

Based on the results of the Phase II investigation, no contaminants of concern were detected above TACO Tier 1 SROs in association with this REC. No further investigation is warranted.

#### **2.4.1.19      *Unknown Fill Material (REC #20)***

PNAs, total and TCLP metals were detected in soil boring B-25 advanced in the fill material below the Forsyth Building. Naphthalene, benzo(a)anthracene, benzo(b)fluoranthene, benzo(a)pyrene, indeno(1,2,3-cd)pyrene, and dibenzo(a,h)anthracene were detected at concentrations above TACO Tier 1 soil ingestion exposure route SROs in soil samples B-25A (2 to 4 feet) and B-25B (6 to 8 feet). No total metal or TCLP metal constituent was detected at concentrations above TACO Tier 1 SROs except for lead. Total lead was detected at concentrations above the soil ingestion SRO in B-25A (2 to 4 feet) and B-25B (6 to 8 feet). The TCLP lead concentration was



above the TACO Tier 1 groundwater ingestion exposure route SRO in soil sample B-25A (2 to 4 feet).

During Stage 2 of the Phase II investigation, soil samples B-60 and B-61 were advanced near B-25 in the Forsyth Building to determine horizontal delineation of total lead and PNAs above TACO Tier 1 ingestions SROs. Soil sample B-59 was advanced to determine vertical extent of contamination.

Sample results indicated total lead was not detected above the TACO Tier 1 SRO in any of the soil samples. No PNAs were detected at concentrations below TACO Tier 1 SROs except benzo(a)pyrene, which was detected in soil borings B-60/5' and B-51/5' at concentrations above ingestion SROs.

#### **2.4.1.20      *Potential Hydraulic Oil Release-Howard Medical Building (REC #21)***

No samples were collected at this location due to lack of access to the building during the investigation. B-26 was the proposed boring number for this location. If SiPi acquires the Howard Medical building before the completion of remedial activities, an investigation and possible remediation activities will be implemented. The results of the investigation and remediation activities, if necessary, will be included in the Remediation Activities Completion Report (RACR).

#### **2.4.1.21      *Downgradient Property Boundary (Not Identified as a REC)***

PNAs and total metals were detected above laboratory detections limits in soil sample B-28 collected during the installation of MW-5. No total metal or PNA constituent was detected above TACO Tier 1 SROs except benzo(a)pyrene. Benzo(a)pyrene was detected at a concentration above the TACO Tier 1 ingestion SRO in B-28 (2 to 4 feet).



Soil samples B-43, B-48, and B-62 were collected during Stage 2 of the Phase II investigation to determine the horizontal and vertical delineation of benzo(a)pyrene at B-28. Benzo(a)pyrene was detected at concentrations above the TACO Tier 1 ingestion SRO in soil samples B-43/2' and B-62/3'. B-62/8' and B-48/3' had detections of benzo(a)pyrene below the TACO Tier 1 ingestion SRO.

#### **2.4.1.22 Upgradient Property Boundary (Not Identified as a REC)**

Total metals were detected above laboratory detections limits in soil sample B-27 collected during the installation of MW-1. No metal constituent was detected in soil sample B-27/MW-1 except total lead. Total lead was detected at a concentration above TACO Tier 1 ingestion exposure route SRO.

During Stage 2 of the Phase II investigation, soil boring B-53 was advanced west of B-27/MW-1 to determine the horizontal extent of contamination to the western property boundary. No total metals constituent was detected above TACO Tier 1 SROs in soil sample B-53/4'.

#### **2.4.2 Monitoring Well Analytical Results**

Groundwater results were compared to TACO Tier 1 Class II GROs. The groundwater analytical results are listed in Table 4. The analytical data is provided in Attachment B.

No VOCs or PNAs were detected in any of the groundwater samples collected from the monitoring wells installed at the subject property. No total metal constituents, except barium, were detected in any of the groundwater samples. Barium was detected in all of the groundwater samples at concentrations below TACO Tier 1 Class II GROs.

### 2.4.3 Other Results

Three soil samples were submitted to First Environmental for  $f_{oc}$  analysis (Method ASTM D 2974-87). The laboratory analytical method was performed in accordance with 35 IAC Part 742.

The  $f_{oc}$  values ranged from 2.5% to 13.33% in the samples analyzed. However, the sample containing  $f_{oc}$  at 13.33% was collected in an area that contained contamination. Results of the  $f_{oc}$  analysis are summarized in Table 2. A copy of the laboratory report is provided in Appendix F.

Slug testing was conducted on four of the monitoring wells to determine hydraulic conductivity. Based on hydraulic conductivity obtained during slug testing on the monitoring wells at the subject property, the fill material containing groundwater has a hydraulic conductivity of  $6.26 \times 10^{-3}$  cm/sec to  $1.65 \times 10^{-4}$  cm/sec. The hydraulic conductivity testing results are provided in Appendix G.

## 2.5 ENDANGERMENT ASSESSMENT

Based on the findings of the Phase II investigations, the original RECs described in the Phase I ESA can be consolidated into five areas of concern (AOCs).

### 2.5.1 AOC I: Former Foundry Operations/Fill Material (Former REC #3 & 4)

#### 2.5.1.1 *Contaminants of Concern*

Historic foundry operations were conducted in the middle portion of the building. It is possible there is residual metal dust onsite because of this operation. The middle section of the main building was brought up to dock height with unknown fill reported to contain



cinders. Perched water under this part of the building may have originated from subgrade quench tank pits and machine pits. The water in these pits may contain residual metals. A machine pit under the pouring conveyor equipment was reported to be leaking wash water from cooling the ingots to the subsurface as well. In addition, an out-of-use one-ton electric induction furnace has a deep-water pit and associated deeper trough (~20 to 25 feet deep). The trough was reported to have been leaking prior to its removal from service.

Clayton identified the contaminants of concern for this area as: PNAs and metals.

### **2.5.1.2 Contaminated Media**

A total of 48 borings were advanced on the property that address the former foundry operations and fill material beneath the subject buildings. PNA constituents assumed to be associated with the historic fill material were detected in borings B-7, B-28/MW-5, B-43, and B-62 at concentrations above TACO Tier 1 ingestion exposure route SROs. Additionally, soil borings B-6 and B-7 had concentrations of naphthalene above the TACO Tier 1 inhalation exposure route SROs.

Total lead was detected above the TACO Tier 1 ingestion exposure route SRO in soil samples collected from B-5, B-6, B-13, B-17/MW-4, B-20, B-32, B-33, B-37, B-39, B-40, B-41, B-49, B-52, B-55, B-57, and B-58. Total arsenic concentrations exceeded the TACO Tier 1 ingestion exposure route SRO in soil samples collected from B-4 and B-5.

TCLP metals, lead and/or cadmium, were detected at concentrations above the TACO Tier 1 soil migration to groundwater SROs from the soil samples collected from B-3, B-4, B-5, B-5, B-6, B-7, B-13, B-17/MW-4, B-19, B-25, B-27/MW-1, B-32, and B-44. TCLP



lead was detected above toxicity characteristic hazardous waste levels in soil samples collected from B-4, B-7, B-31, and B-34.

PNA compounds were detected at concentrations above TACO Tier 1 Class II GROs in groundwater grab samples collected from B-2 and B-6 (GW-2 and GW-6). Soil boring B-29 was advanced downgradient of GW-2 and GW-6 during Stage 2 of the Phase II investigation to determine if PNA compounds in the groundwater are in the dissolved phase or if the PNAs are found only in the sediment. Two samples were collected for PNAs. One sample was directly collected in a specified laboratory container. The second sample was field- and laboratory-filtered to remove any sediment. The results of the groundwater grab sample collected at B-29 indicated PNAs were detected only in the unfiltered sample collected (GW-29U). No PNA was detected above TACO Tier 1 GROs in either the unfiltered and filtered sample.

A groundwater grab sample collected from soil boring B-3 contained concentrations of total lead above TACO Tier 1 Class II GROs. A groundwater grab sample was collected during the second stage of the Phase II investigation to determine if the total lead is in dissolved phase or if it is contained only in the sediment. Two samples were collected for total lead from groundwater grab sample GW-30. One sample was directly collected in a specified laboratory container. The second sample was field- and laboratory-filtered to remove any sediment. Results of the analysis indicated the unfiltered sample GW-30U contained concentrations of total lead above the TACO Tier 1 Class II GRO. The filtered sample GW-30F did not contain concentrations of total lead above laboratory detection.

### **2.5.1.3      *Extent of Compounds of Concern***

#### **2.5.1.3.1      Soil PNA Impacts**

PNAs associated with the historic fill material and/or the former foundry operations include naphthalene, benzo(a)anthracene, benzo(b)fluoranthene, benzo(k)fluoranthene, benzo(a)pyrene, indeno(1,2,3-cd)pyrene, and dibenzo(a,h)anthracene. PNA soil impacts above TACO Tier 1 ingestion/inhalation exposure route SROs are bracketed to the north by soil borings B-2 and B-29, to the south by B-48, to the west by B-40 and B-55, and to the east by the property boundary. Further sampling is required to determine the full extent of contamination to the southeast. This sampling will be conducted either as a separate phase prior to implementation of remedial actions or in connection with implementation of the remedial actions. While further delineation is needed to complete the remedial actions, the remedial action plan for this AOC can be developed prior to completing the additional sampling.

#### **2.5.1.3.2      Soil Metals Impacts**

Lead soil impacts above TACO Tier 1 ingestion/inhalation exposure route SROs are bracketed to the north by soil borings B-3, B-36, and B-19; to the south by B-8; to the west by soil borings B-19, B-53, and B-56; and to the east by the property boundary. The lead contamination beneath the subject building appears to be contained within the fill material. Further sampling will be required to address the extent of impact of total lead on the southwest side of the main property.

TCLP lead was detected above toxicity characteristic hazardous levels in soil borings B-4, B-7, B-31, and B-34 in the fill material beneath the subject building. The TCLP lead impacts above the hazardous level near B-4 are bracketed to the north by soil boring B-33, to the west by B-32, and to the east by B-5. Due to the presence of TCLP lead



above toxicity characteristic hazardous levels in B-34, further delineation is necessary to the south.

The additional sampling for metals and TCLP metals will be conducted either as a separate phase prior to implementation of remedial actions or in connection with implementation of the remedial actions. While further delineation is needed to complete the remedial actions, the remedial action plan for this AOC can be developed prior to completing the additional sampling.

## **2.5.2 AOC II: Potential Transformer Release (Former REC #5)**

### **2.5.2.1 *Contaminants of Concern***

Approximately 15 years ago, there had been a transformer explosion in the group of four ComEd transformers located on the western roof of the middle section of the building. Oils were reported to have run down the gutters and into the storm drains to the subsurface storm sewer system. It is not known if the oil released contained PCBs. The contaminants of concern for this area were identified as VOCs, PNAs, and PCBs.

### **2.5.2.2 *Contaminated Media***

A total of 9 borings were advanced on the property that address the former transformer release. PNA constituents assumed to be associated with the historic transformer release were detected at concentrations above TACO Tier 1 ingestion exposure route SROs in borings B-4 and B-34. PCBs were detected at concentrations above TACO Tier 1 soil ingestion exposure route SROs in soil borings B-4, B-31, and B-32.

During the second stage of the Phase II investigation, high PID readings were detected in soil samples collected at 7 feet bgs in soil sample B-31. These samples were submitted to



the laboratory for VOC analysis. Results of the analysis indicated vinyl chloride was detected at a concentration above the TACO Tier 1 ingestion exposure route SRO in soil sample B-31/7'. Additionally, trichloroethene and cis-1,2-dichloroethene were detected above the TACO Tier 1 migration to groundwater SRO.

### **2.5.2.3      *Extent of Compounds of Concern***

#### **2.5.2.3.1      Soil PNA Impacts**

PNAs associated with the historic transformer release include benzo(a)anthracene, benzo(b)fluoranthene, benzo(a)pyrene, and dibenzo(a,h)anthracene. PNA soil impacts above TACO Tier 1 ingestion/inhalation exposure route SROs are bracketed to the north by soil borings B-33, to the south by B-55, to the west by B-32, and to the east by B-5. The southern extent of PNAs above ingestion/inhalation will be further delineated during remedial activities.

#### **2.5.2.3.2      Soil PCB Impacts**

PCBs associated with the historic transformer release include arochlor 1254 and arochlor 1260. PCB soil impacts above TACO Tier 1 ingestion/inhalation exposure route SROs are bracketed to the north by soil borings B-33, to the south by B-34, to the west by B-54, and to the east by B-35.

#### **2.5.2.3.3      Soil VOC Impacts**

VOCs associated with the historic transformer release include trichloroethene, cis-1,2-dichloroethene, and vinyl chloride. VOC soil impacts have not been delineated. The VOCs detected in this area will be horizontally and vertically delineated during the remediation activities at the subject property.



### **2.5.3 AOC III: Abandoned 2,000-gallon Gasoline UST (Former REC#9)**

#### **2.5.3.1 *Contaminants of Concern***

A former 2,000-gallon gasoline UST is present underneath the southern portion of the main building in the liquids storage room of the cyanide area. The UST was reported to have been removed from service and filled with pea gravel in 1981. The contaminants of concern for this area were identified as BTEX.

#### **2.5.3.2 *Contaminated Media***

A total of 6 borings were advanced to assess the former abandoned 2,000-gallon gasoline UST area. Contaminated media are limited to benzene-contaminated soils in the southeast portion of the subject property.

#### **2.5.3.3 *Extent of Compounds of Concern***

##### **2.5.3.3.1 *Soil BTEX Impacts***

BTEX constituents associated with the former 2,000-gallon gasoline UST include benzene. Benzene soil impacts above TACO Tier 1 ingestion/inhalation exposure route SROs are bracketed to the north by soil borings B-6, to the south by B-48, to the west by B-49, and to the east by B-47. Accordingly, this AOC is considered to be fully delineated and no further investigation is necessary prior to implementation of remedial activities.



## **2.5.4 AOC IV: Fill Material at the Forsyth Building (Former REC #20)**

### **2.5.4.1 *Contaminants of Concern***

The Forsyth building located on the south end of the subject property was constructed on top of several feet of fill material to raise the truck doors to dock height. The fill beneath the building is of unknown origin. The contaminants of concern for this area were identified as PNAs, VOCs, and metals.

### **2.5.4.2 *Contaminated Media***

A total of 4 borings were advanced at the Forsyth building to address the unknown fill material. PNA constituents were detected at concentrations above TACO Tier 1 ingestion exposure route SROs in borings B-25, B-60, and B-61. Total lead was detected at concentrations above TACO Tier 1 soil ingestion exposure route SROs in soil boring B-5. TCLP lead was detected at a concentration above the TACO Tier 1 migration to groundwater SRO in soil sample B-25A (2 to 4 feet). No VOC constituent was detected above TACO Tier SROs.

### **2.5.4.3 *Extent of Compounds of Concern***

#### **2.5.4.3.1 *Soil VOC Impacts***

Soil sample B-25 was analyzed for VOCs during the first stage of the Phase II investigation. No soil sample had VOCs above the Illinois EPA Tier 1 SROs. Accordingly, no further investigation of VOCs is warranted.

#### **2.5.4.3.2 Soil Metals Impacts**

In the fill material beneath the Forsyth building, metal impacts above Illinois EPA Tier 1 SROs and/or the background levels provided in Part 742 Appendix A – Table G were limited to total lead and TCLP lead. Lead soil impacts above TACO Tier 1 SROs are bracketed to the north by B-61, to the west by B-60, and to the south and east by the property boundary. A soil sample collected at 12 feet bgs from B-59 near soil boring indicated total lead was below laboratory detection limits. Based on the Phase II investigation results, metals impacts to soils at this AOC have been fully delineated and no further investigation is necessary.

#### **2.5.4.3.3 Soil PNA Impacts**

PNA impacts above Illinois EPA Tier 1 SROs are limited to naphthalene, benzo(a)anthracene, benzo(b)fluoranthene, benzo(a)pyrene, indeno(1,2,3-cd)pyrene, and dibenzo(a,h)anthracene. PNA soil impacts above TACO Tier 1 SROs are undefined due to the presence of benzo(a)pyrene above the TACO Tier 1 ingestion exposure route SRO in the soil samples collected to the north and west (B-61 and B-60, respectively) of the original boring B-25. However, soil samples collected at 12 feet bgs from B-59, near soil boring B-25, indicated the soil does not contain PNAs above TACO Tier 1 SROs. Based on the Phase II investigation results, PNA impacts to soils at this AOC have been fully delineated and no further investigation is necessary..

### **2.5.5 AOC V: Former Bulk Oil Storage (Former REC #11)**

#### **2.5.5.1 Contaminants of Concern**

Formerly two heating oil ASTs operated as part of a bulk fuel oil transfer station. The oil pump house was situated west of the ASTs and was reportedly used to control transfer of



oil from railcars to the ASTs. The original tanks were situated along the northeastern property boundary. The tanks were subsequently relocated to the north central portion of the property and were secured within concrete containment (walls and floor). The ASTs were decommissioned in 1973. The contaminants of concern for this area were identified as BTEX and PNAs.

#### **2.5.5.2      *Contaminated Media***

A total of 4 borings were advanced at the former locations of the heating oil ASTs on the north side of the subject property to address whether there was any impacts from this REC. No BTEX constituent was detected above TACO Tier SROs. PNA constituents were detected at concentrations above TACO Tier 1 ingestion exposure route SROs in borings B-11, B-50, and B-51. Additionally, benzo(a)anthracene was detected above the TACO Tier 1 migration to groundwater SRO in B-50. As requested by the Illinois EPA, TPH samples were collected from B-50 and B-51 during the second stage of the Phase II investigation. Soil sample B-50 (4 to 6 feet) contained concentrations of TPH above the soil attenuation capacity of 2,000 mg/kg.

#### **2.5.5.3      *Extent of Compounds of Concern***

##### **2.5.5.3.1      Soil BTEX Impacts**

Soil samples B-10 and B-11 were analyzed for BTEX during the first stage of the Phase II investigation. No soil sample had BTEX above the Illinois EPA Tier 1 SROs.

##### **2.5.5.3.2      Soil PNA Impacts**

PNA impacts above Illinois EPA Tier 1 SROs were limited to naphthalene, benzo(a)anthracene, benzo(b)fluoranthene, benzo(a)pyrene, indeno(1,2,3-cd)pyrene, and



dibenzo(a,h)anthracene. PNA soil impacts above TACO Tier 1 SROs were detected in samples collected on the east and west side of the northern portion of the property. The extent of PNA contamination is assumed to extend to the property boundaries to the north, west, and east. The PNA impacts to the south extend to soil boring B-10.

TPH was detected in soil sample B-50 (4 to 6 feet) above the soil attenuation capacity. Based on the results of the investigation, a correlation appears to exist between the PNA concentrations and the TPH concentration. Based on the results of the sampling in the northern portion of the area, TPH above the soil attenuation capacity is most likely limited to B-11/MW-3 and B-50. However, sampling conducted at monitoring well MW-3 did not indicate the presence of free phase hydrocarbons. Further sampling will be conducted to determine the extent of TPH above the soil attenuation capacity. This sampling will be conducted either as a separate phase prior to implementation of remedial actions or in connection with implementation of the remedial actions. While further delineation is needed to complete the remedial actions, the remedial action plan for this AOC can be developed prior to completing the additional sampling.

#### **2.5.6 Comparison of Investigation Analytical Results with Tier 1 SROs**

Clayton performed an Endangerment Assessment (EA) of the subject property based on the findings of the Phase I and Phase II investigations. Clayton compared the soil results with the TACO Tier 1 Class II soil migration to groundwater SROs and the most stringent inhalation and ingestion TACO Tier 1 SROs for Commercial/Industrial Properties (35 IAC Part 742) for the EA.

##### **2.5.6.1 VOCs**

The subject property has benzene above TACO Tier 1 SROs near the abandoned 2,000-gallon gasoline UST located in the southern portion of the main building. Vinyl chloride



was detected above TACO Tier 1 SROs in a soil sample collected near the former transformer release on the western side of the main building.

#### **2.5.6.2      *PNA's***

The subject property has the following soil PNA's with impacts above the TACO Tier 1 SROs for Commercial/Industrial Properties: naphthalene, benzo(a)pyrene, benzo(a)anthracene, benzo(b)fluoranthene, benzo(k)fluoranthene, indeno(1,2,3-cd)pyrene, and dibenzo(a,h)anthracene. The PNA impacts are mainly isolated to four areas: the northern parking area, near the location of the former transformer release in the central portion of the facility, in the south section of the main building, and in the fill material beneath the Forsyth building. No soil sample, except soil boring B-50, contained total concentrations of TPH higher than the soil attenuation capacity.

#### **2.5.6.3      *PCBs***

The subject property has soil with impacts of PCBs above TACO Tier 1 SROs for Commercial/Industrial Properties. The PCB impact is isolated to near the location of the former transformer release in the central portion of the facility. No soil sample contained total concentrations of PCBs higher than the toxicity characteristic hazardous level.

#### **2.5.6.4      *Metals***

Metal impacts at concentrations above the Illinois EPA Tier 1 SROs and/or the background levels provided in Part 742 Appendix A - Table G are located mainly in the middle portion of the subject property. The subject property has the following metals with impacts above Illinois EPA Tier 1 SROs: arsenic and lead.



Total arsenic and lead were detected above TACO Tier 1 SROs in many soil samples collected from the fill material located in the central portion of the subject property and the middle and southern portion of the main building.

Additionally, TCLP lead above toxicity characteristic hazardous levels was detected in two areas at the property: near the former transformer release on the western side of the main building and near the potential hydraulic oil release from the pouring conveyor on the southeastern portion of the middle section of the main building.

### 2.5.7 Exposure Routes

Clayton evaluated the following potential exposure routes for actual or potential impact to a receptor or potential receptor from a contaminant of concern at the subject property:

- Inhalation of vapors
- Ingestion of soil
- Ingestion of groundwater

The compounds lead, arsenic, benzo(a)anthracene, benzo(b)fluoranthene, benzo(k)fluoranthene, benzo(a)pyrene, indeno(1,2,3-cd)pyrene, and dibenzo(a,h)anthracene were all above Illinois EPA Tier I Commercial/Industrial Ingestion SROs.

Naphthalene, benzene, and vinyl chloride were detected above TACO Tier I Commercial/Industrial Inhalation SROs at the subject property.

Benzene, trichloroethene, cis-1,2-dichloroethene, vinyl chloride, cadmium, lead, benzo(a)anthracene, and carbazole were all above TACO Tier 1 Class II SROs for the soil component of groundwater ingestion exposure route for commercial/industrial properties.



Based on the results of groundwater sampling at the monitoring wells, no VOC, PNA, or metal constituent appears to be in dissolved phase.

As stated before, all three exposure routes were identified with the potential for actual or potential impact to a receptor or potential receptor from the above-referenced contaminants of concern. The number of soil samples collected that may affect the exposure pathways are summarized below:

COMPOUNDS	SOIL INGEST. PATHWAY	SOIL INHAL. PATHWAY	MIGRATION TO CLASS II GW PATHWAY	TCLP HAZ WASTE	SOIL ATTEN. CAPACITY
<b>VOCS</b>					
Benzene	0	1	1	0	0
Cis-1,2-dichloroethene	0	0	1	0	0
Trichloroethene	0	0	1	0	0
Vinyl chloride	0	1	1	0	0
<b>PNAs</b>					
Naphthalene	0	5	0	0	0
Benzo(a)anthracene	7	-	7	0	0
Benzo(b)fluoranthene	5	-	1	0	0
Benzo(k)fluoranthene	1	-	0	0	0
Benzo(a)pyrene	16	-	1	0	0
Indeno(1,2,3-cd)pyrene	4	-	1	0	0
Dibenz(a,h)anthracene	7	-	1	0	0
Carbazole	0	-	1	0	0
TPH	0	0	0	0	1
<b>Metals</b>					
Arsenic	2	0	0	0	-
Cadmium	0	0	6	0	-
Lead	22	-	14	4	-

## 2.5.8 Contaminant Fate and Transport

The soil component of the groundwater ingestion exposure route will be excluded based on the results of the groundwater grab sampling from the soil boring and the groundwater



sampling conducted from the monitoring wells. The inhalation and ingestion exposure pathways will be excluded by installing engineered barriers. Any soil above toxicity characteristic hazardous levels or above soil attenuation capacity will be removed from the subject property.

## **2.5.9 Physical Features Affecting Contaminant Transport and Exposure Risk**

The physical features affecting contaminant transport include: the structures on subject property, the paved parking areas, and the site geology. The structures and paved parking areas limit infiltration of precipitation that reduces leaching and vertical transport of contaminants.

### 3.0 REMEDIAL OBJECTIVES

The remediation objectives established for the soil at the subject property containing constituents of concern are the Tier 1 industrial/commercial SROs established for these constituents in Appendix B, Table B in the 35 IAC 742 regulations. The remediation objectives established for the groundwater containing constituents of concern are the Tier 1 Class II GROs established for these constituents in Appendix B, Table E in the 35 IAC 742 regulations.

TCLP lead was detected above the toxicity characteristic hazardous level of 5.0 parts per million (ppm) in soil samples collected from soil borings B-4 and B-7. Additionally, the soil sample collected for TPH from B-50 in the north parking area contained total organics above the default values for soil attenuation capacity in Section 732.215 (6,000 mg/kg for soil within the top meter and 2,000 mg/kg for soils below one meter of the surface). The proposed remedial activities to address the leachable lead and the residual TPH concentrations will be presented in a RAP.

### 3.1 EVALUATION OF THE SOIL INGESTION EXPOSURE ROUTE

The remediation objectives established for the constituents of concern identified in the soil at the subject property are based on the applicable Tier 1 Industrial/Commercial SROs. The remediation objectives for the most stringent soil ingestion exposure route SROs are summarized below:

COMPOUNDS	SOIL INGESTION EXPOSURE ROUTE REMEDIAL OBJECTIVE
<i>PNAs ug/kg</i>	
Benzo(a)anthracene	8,000
Benzo(b)fluoranthene	8,000
Benzo(k)fluoranthene	78,000



COMPOUNDS	SOIL INGESTION EXPOSURE ROUTE REMEDIAL OBJECTIVE
Benzo(a)pyrene	800
Indeno(1,2,3-cd)pyrene	8,000
Dibenz(a,h)anthracene	800
<b>Metals mg/kg</b>	
Arsenic	61
Lead	400

The soils remaining at the subject property with concentrations above the soil ingestion exposure route will be excluded by using an engineered barrier (over the areas of the Site where contamination exists) that will remain in place through use as an institutional control. The engineered barrier will consist of one or more of the following: concrete, asphalt, pavement, buildings, or 3 feet of clean fill material. The engineered barrier will most likely be installed during development of the subject property. Further information regarding the location and installation of engineered barriers will be provided in the RAP.

### 3.2 EVALUATION OF THE SOIL INHALATION EXPOSURE ROUTE

The remediation objectives established for the constituents of concern identified in the soil at the subject property are based on the applicable Tier 1 Industrial/Commercial SROs. The remediation objectives for the most stringent soil inhalation exposure route SROs are summarized below:

COMPOUNDS	SOIL INHALATION EXPOSURE ROUTE REMEDIAL OBJECTIVE
<b>VOCS ug/kg</b>	
Benzene	1,600
Vinyl chloride	1,100
<b>PNAs ug/kg</b>	
Naphthalene	1,800



The soil inhalation exposure route will be excluded by using an engineered barrier (over the areas of the subject area where contamination exists) that will remain in place through use as an institutional control. The engineered barrier will consist of one or more of the following: concrete, asphalt, pavement, buildings, or 3 feet of clean fill material. The engineered barrier will most likely be installed during development of the subject property. Further information regarding the installation of engineered barriers will be provided in the RAP.

### **3.3 EVALUATION OF THE GROUNDWATER INGESTION EXPOSURE ROUTE**

Based on groundwater sampling information collected at the subject property, no evidence of dissolved phase contaminants have been identified in the water contained in the fill material. The fill material that contains residual chemical compounds has been in contact with the water within the fill material for a relatively long duration, in most cases more than 80 years. Based on the groundwater results of water samples collected from both permanent groundwater monitoring wells and groundwater grab samples, none of the compounds detected in the soil/fill samples have leached into the groundwater. Based on this data, it does not appear that these compounds will ever leach into water beneath the subject property. Therefore, the migration to groundwater pathway will be excluded in the RAP.

#### 4.0 CONCLUSIONS

This report is a compilation of the Comprehensive SI Report and the RO Report completed in accordance with the Illinois EPA SRP and 35 IAC Part 742. Subsurface investigations of the subject property have been conducted as discussed in the Comprehensive SI Report. The RO Report has evaluated the soil and groundwater exposure routes with respect to the identified impacted soil encountered on the subject property located at 1720 North Elston Avenue, Chicago, Illinois. Clayton, on behalf of SiPi Metals, is submitting this report in order to satisfy the requirements of the SI Reporting protocols and to obtain approval of the remediation objectives in accordance with 35 IAC 740. The approved remediation objectives will be used in developing the RAP to address the impacted soils related to the AOCs identified during the site investigation. The following conclusions were identified during the investigation activities:

1. In general, the geology beneath the subject property consists of sandy fill and/or topsoil underlain by silty clay. The topsoil and/or fill ranges in thickness from 1.5 to 9.0 feet. Groundwater was encountered at the interface between the fill material and the native silty clay. Based on water level elevations in the groundwater monitoring wells, the general groundwater flow direction is to the east.
2. During Phase I ESA activities, 21 RECs were identified at the subject property.
3. Based on the results of the Phase II investigations, no further investigation is warranted at the following RECs:
  - a) REC 1: The northeast section of the main building was formerly used to process metals out of spent acidic plating solutions.
  - b) REC 10: A gasoline UST and dispensing pump formerly located at the west end of the southern wall of the main building was removed without documentation in 1990.



- c) REC 14: Two 10,000-gallon fuel oil USTs installed in 1974 and removed in 1990 without documentation, were present in the area north of the Taylor Baghouse.
  - d) REC 17: The former operations may have included the use of paints and solvents at the 1660 Besly Building.
  - e) REC 18: Two hydraulic freight elevator systems are located at the 1660 Besly Building.
  - f) REC 19: A "locomotive warehouse" was situated on this property in a 1914 Sanborn Fire Insurance Map.
4. RECs 2, 6, 7, 8, 12, 13, 15, and 16 had soil and/or groundwater constituents above TACO Tier 1 SROs, however based on the constituents detected, the individual RECs have been combined into the AOCs.
5. During extensive assessment activities at the subject property, the original RECs were subdivided into the following five AOCs (AOC I through V):
- a) **AOC I – Former Foundry Operations/Fill Material (Former REC #3 & 4):** PNA constituents assumed to be associated with the historic fill material were detected in borings B-7, B-28/MW-5, B-43, and B-62 at concentrations above TACO Tier 1 ingestion exposure route SROs. Additionally, soil borings B-6 and B-7 had concentrations of naphthalene above the TACO Tier 1 inhalation exposure route SROs. Total lead was detected in soil samples collected from B-5, B-6, B-13, B-17/MW-4, B-20, B-32, B-33, B-37, B-39, B-40, B-41, B-49, B-52, B-55, B-57, and B-58 above the TACO Tier 1 ingestion exposure route SRO. Total arsenic concentrations exceeded the TACO Tier 1 ingestion exposure route SRO in soil samples collected from B-4 and B-5. TCLP lead was detected above toxicity characteristic hazardous waste levels in soil samples collected from B-4, B-7, B-31, and B-34. Figure 6A shows the extent of contamination for this AOC.
  - b) **AOC II – Potential Transformer Release (Former REC #5):** PNA constituents assumed to be associated with the historic transformer release were detected in borings B-4 and B-34 at concentrations above TACO Tier 1 ingestion exposure route SROs. PCBs were detected in soil borings B-4, B-31, and B-32 at concentrations above TACO Tier 1 soil ingestion exposure route SROs. Additionally, results indicated vinyl chloride was detected in soil sample B-31/7' at a concentration above the TACO Tier 1 ingestion exposure route SRO. Figure 6B shows the extent of contamination for this AOC.



- c) **REC III – Abandoned 2,000-gallon Gasoline UST (Former REC#9):**  
Benzene was detected soil boring B-8 in the southeast portion of the subject property above the TACO Tier 1 soil inhalation exposure route. Figure 6C shows the extent of contamination for this AOC.
  - d) **AOC IV – Fill Material at the Forsyth Building (Former REC #20):** PNA constituents were detected in borings B-25, B-60, and B-61 at concentrations above TACO Tier 1 ingestion exposure route SROs. Total lead was detected in soil borings B-5 at concentrations above TACO Tier 1 soil ingestion exposure route SROs. Figure 6D shows the extent of contamination for this AOC.
  - e) **AOC V – Former Bulk Oil Storage (Former REC #11):** PNA constituents were detected in borings B-11, B-50, and B-51 at concentrations above TACO Tier 1 ingestion exposure route SROs. As requested by the Illinois EPA, TPH samples were collected from B-50 and B-51 during the second stage of the Phase II investigation. Soil sample B-50 (4 to 6 feet) contained concentrations of TPH above the soil attenuation capacity of 2,000 mg/kg. Figure 6E shows the extent of contamination for this AOC.
6. The total petroleum hydrocarbon and the sum of the concentrations of constituents detected in samples collected during site investigation activities was not above the minimum soil attenuation capacity of 2,000 mg/kg, except in soil boring B-50 located in the northern parking area.
  7. No constituent was detected above toxicity characteristic hazardous levels except TCLP lead found in the fill material on the east and west sides of the middle section of the subject property building (soil borings B-4 and B-7).
  8. The groundwater results of water samples collected from both permanent groundwater monitoring wells and groundwater grab samples indicated no evidence of dissolved phase contaminants have been identified in the water contained in the fill material. Based on this data, it does not appear these compounds will ever leach into water beneath the subject property. Therefore, the migration to groundwater pathway will be excluded in the RAP.
  9. The subject property meets the criteria for Class II Groundwater.
  10. The areas containing constituents above the ingestion and/or inhalation SROs will be covered with an engineered barrier. This engineered barrier will be used to exclude the ingestion and inhalation pathways at the subject property. Further discussion on the engineered barrier will be presented in the RAP.



11. Based on the information presented in this report, Clayton requests approval for the soil remediation objectives for the following compounds:

<u>Compound</u>	<u>Remediation Objective</u>
a) Benzene	1,600 µg/kg
b) Vinyl Chloride	1,100 µg/kg
c) Benzo(a)anthracene	8,000 µg/kg
d) Benzo(b)fluoranthene	8,000 µg/kg
e) Benzo(k)fluoranthene	78,000 µg/kg
f) Benzo(a)pyrene	800 µg/kg
g) Indeno(1,2,3-cd)pyrene	8,000 µg/kg
h) Dibenzo(a,h)anthracene	800 µg/kg
i) Naphthalene	1,800 µg/kg
j) Arsenic	61 mg/kg
k) Lead	400 mg/kg

Clayton, on behalf of SiPi Metals, respectfully requests that the Illinois EPA SRP approve of the SROs in this report.

## 5.0 REFERENCES

Berg, Richard C. and John P. Kempton, United States Geological Survey, *Potential for Contamination of Shallow Aquifers from Land Burial of Municipal Wastes*, Map.

Illinois Pollution Control Board (IPCB), 1997a. Tiered Approach to Corrective Action Objectives (TACO): 35 Ill. Adm. Code Part 742. Updated to June 1998.

Illinois Pollution Control Board (IPCB), 1997b. Site Remediation Program and Groundwater Quality: 35 Ill. Adm. Code Part 740. Adopted rule, Final Order June 5, 1997.

United States Geological Survey, "Chicago Loop Quadrangle, Illinois, 7.5 Minute Series Topographic Map."

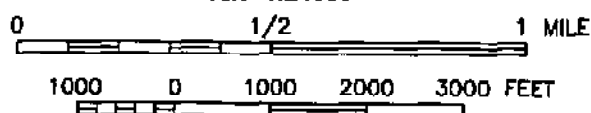
Willman, H.B., et al. 1975. *Handbook of Illinois Stratigraphy*. Illinois State Geological Survey Bulletin 95.



## FIGURES



Scale 1:24000



**FIGURE 1**

**SITE LOCATION MAP**

**SIPI METALS**

**1720 N. ELSTON AVENUE**

**CHICAGO, ILLINOIS**

(SOURCE OF MAP IS USGS 7.5 MINUTE QUADRANGLE MAP, CHICAGO LOOP, ILLINOIS)



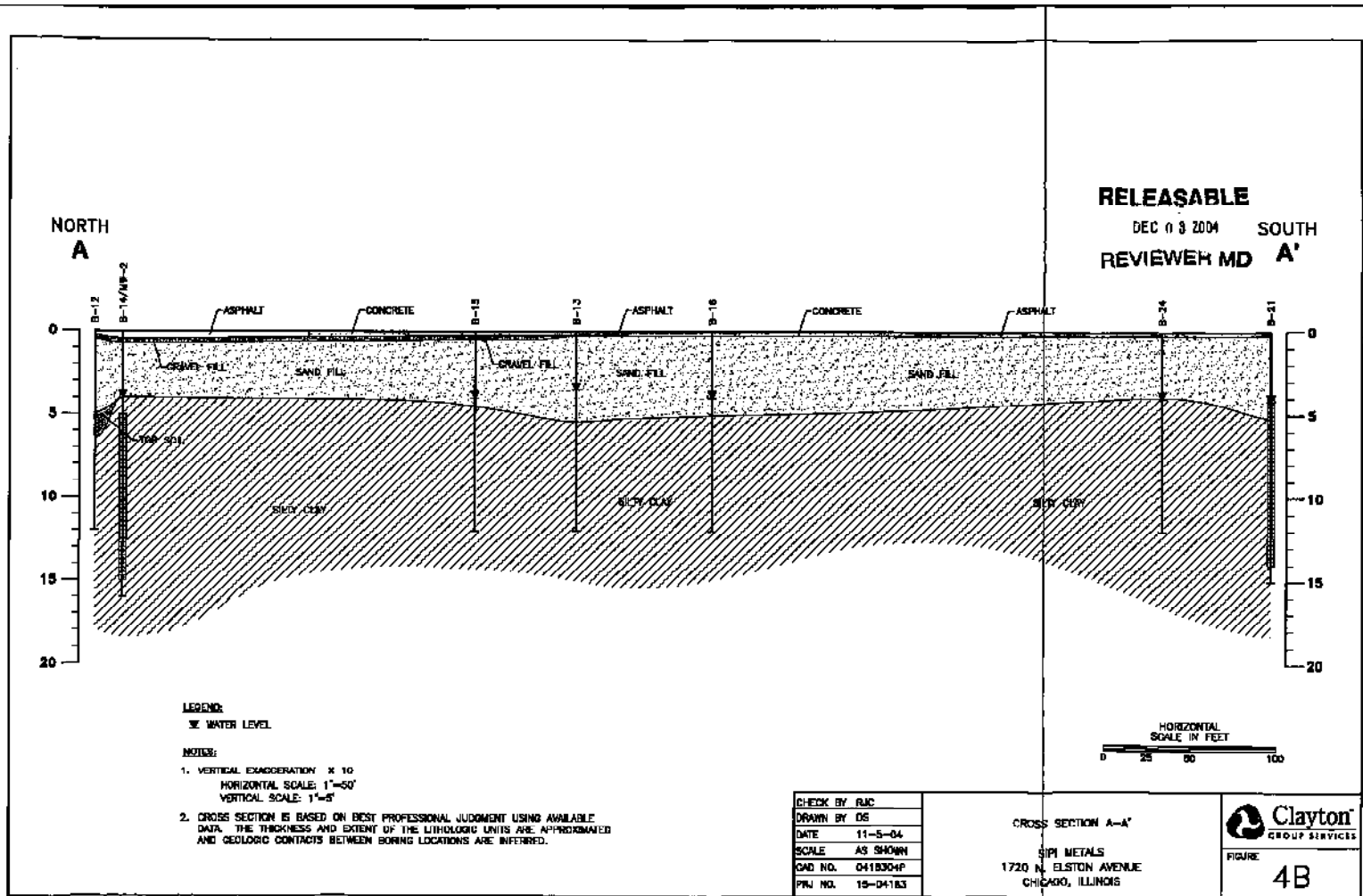
QUADRANGLE LOCATION

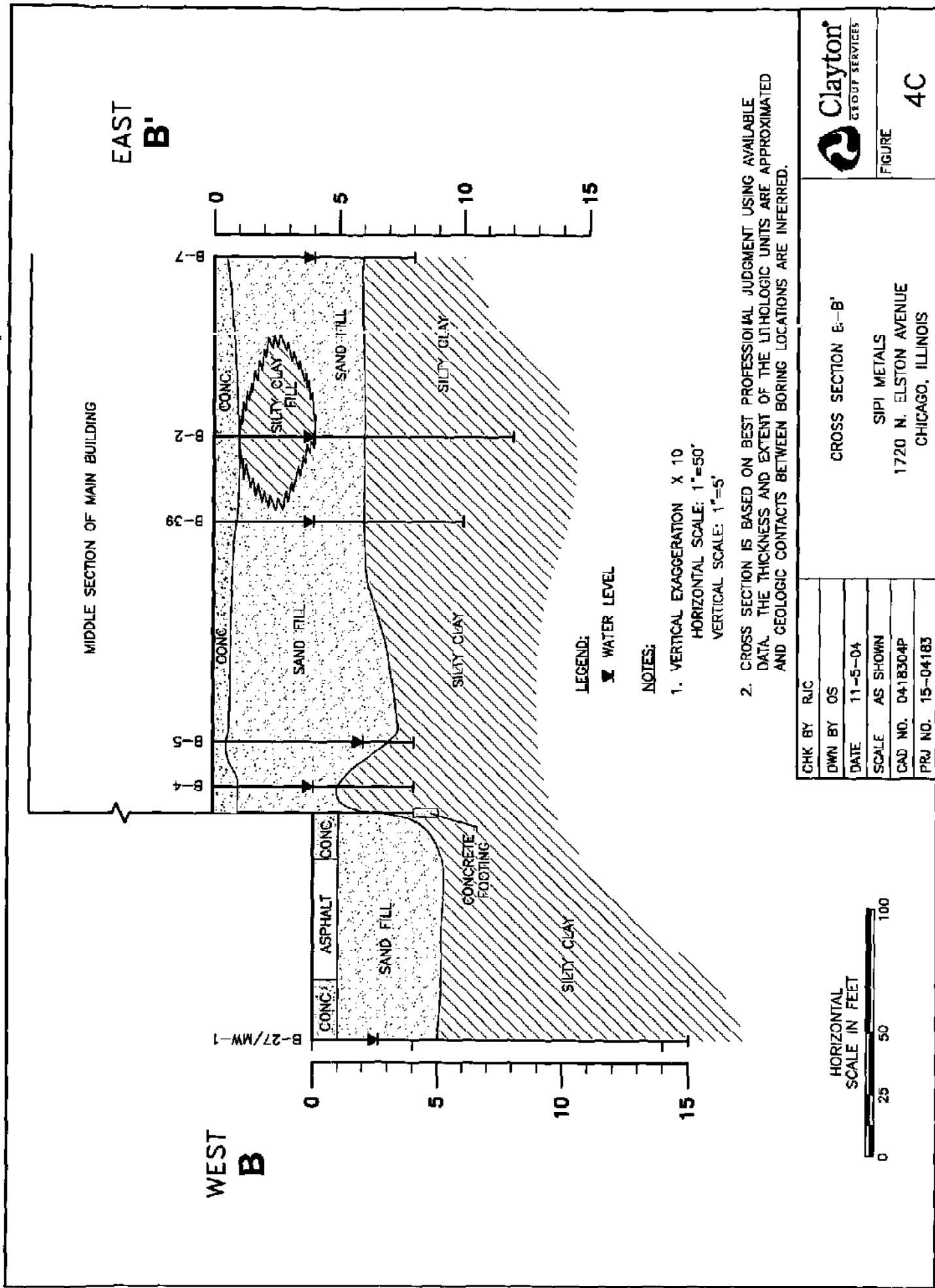







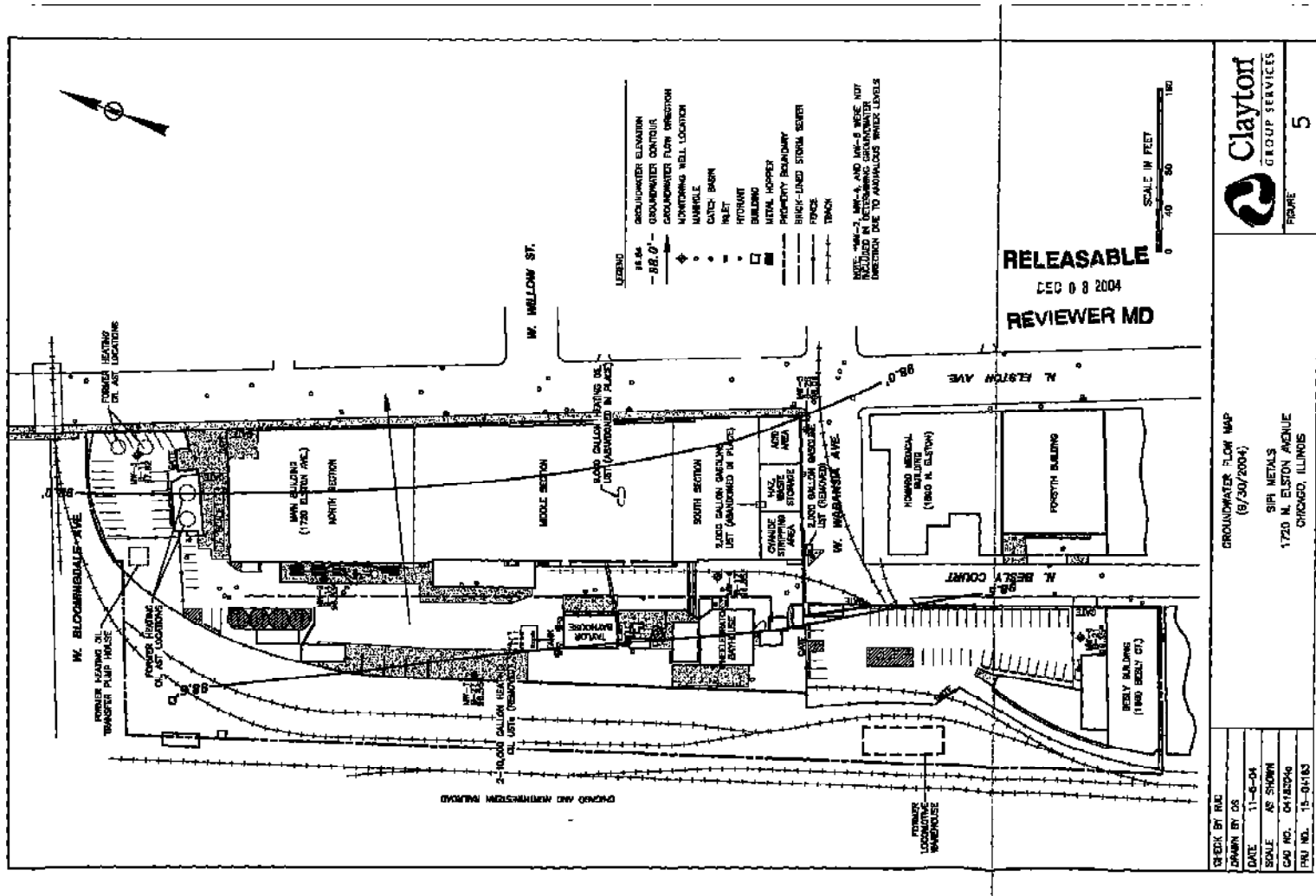


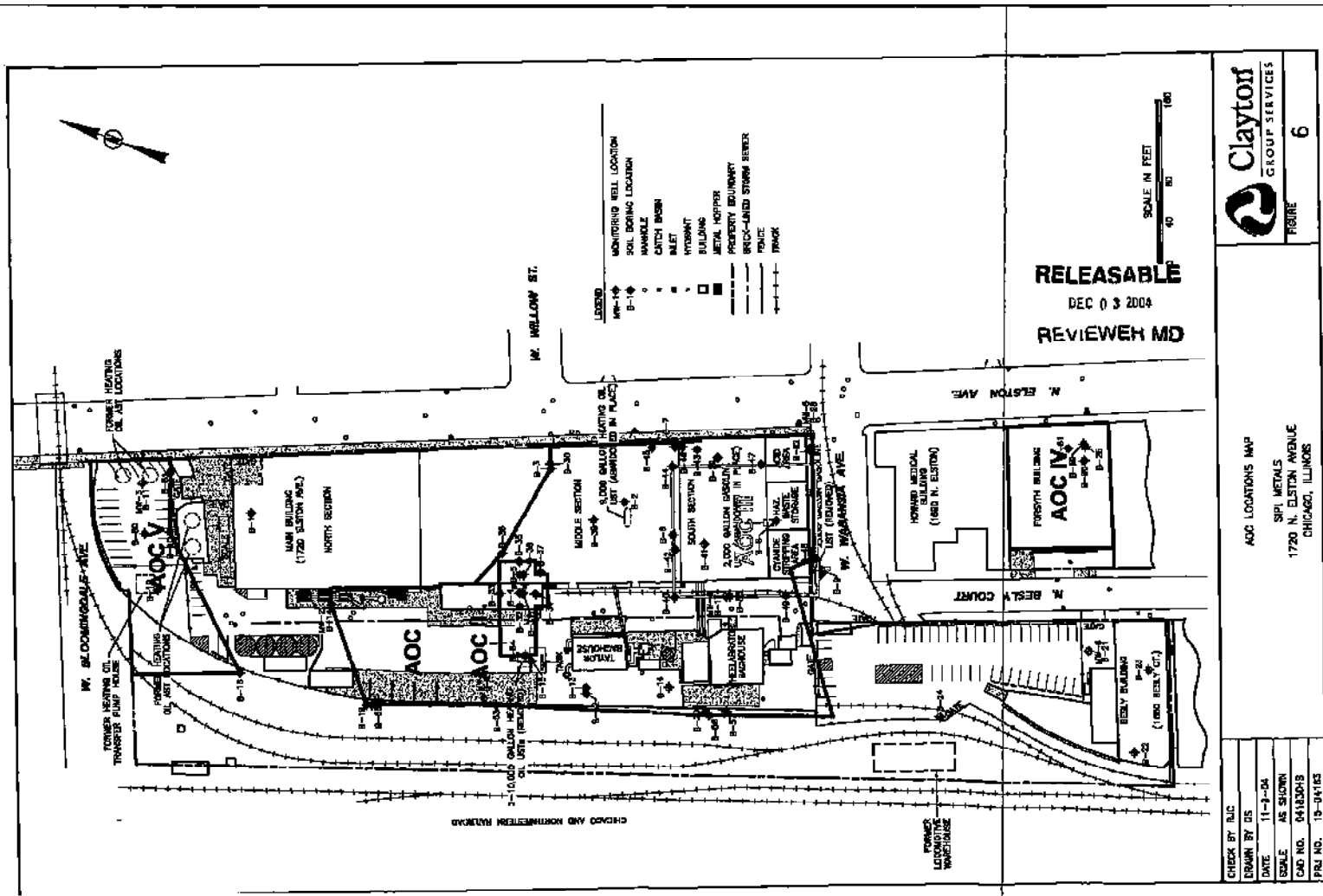




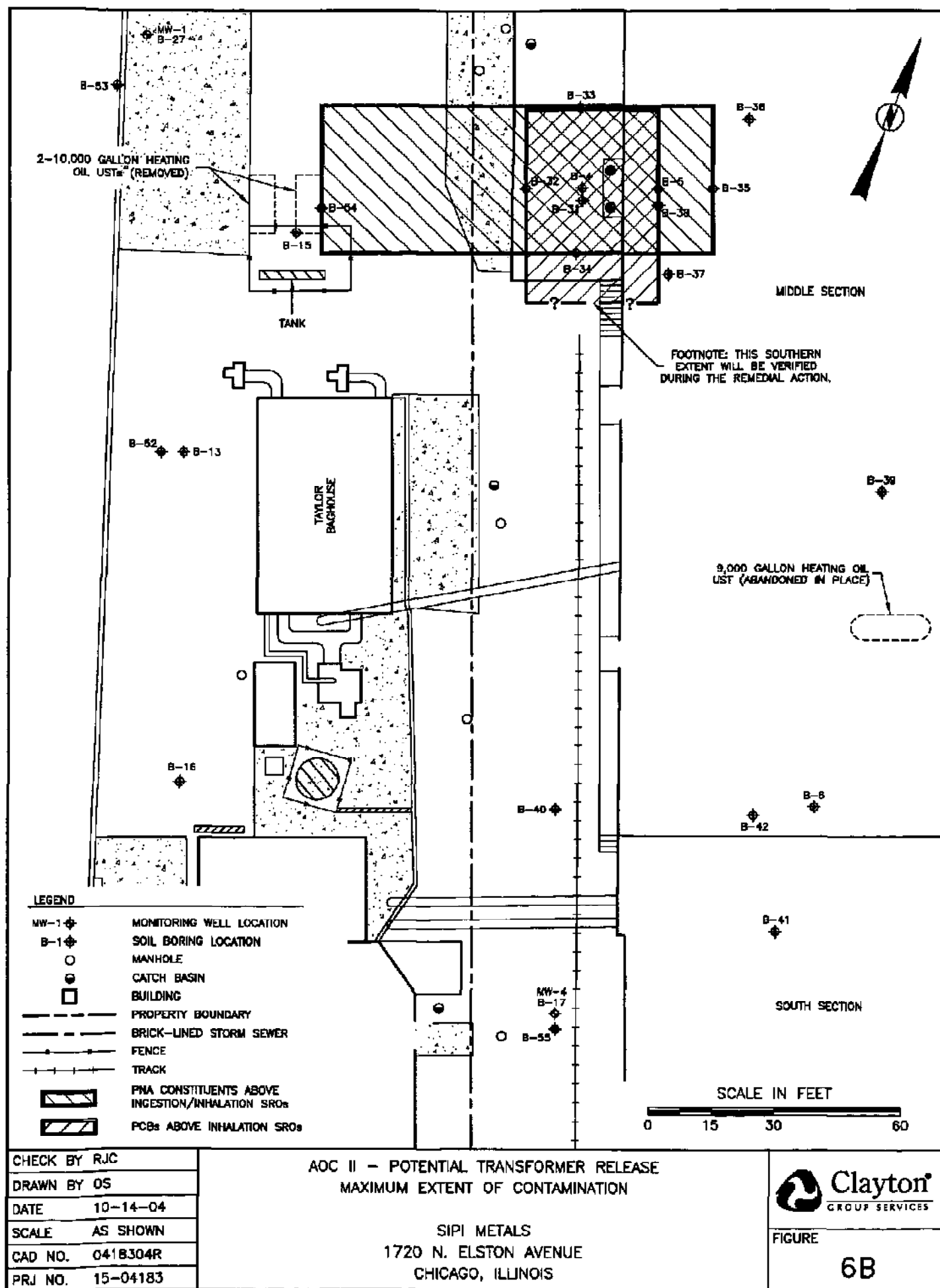
CHK BY RJC		CROSS SECTION E-B'	 <b>Clayton</b> GROUP SERVICES	FIGURE  4C
DWN BY OS				
DATE	11-5-04			
SCALE	AS SHOWN			
CAD NO.	0418304P			
PRJ NO.	15-04183			
		SIPI METALS		
		1720 N. ELSTON AVENUE		
		CHICAGO, ILLINOIS		

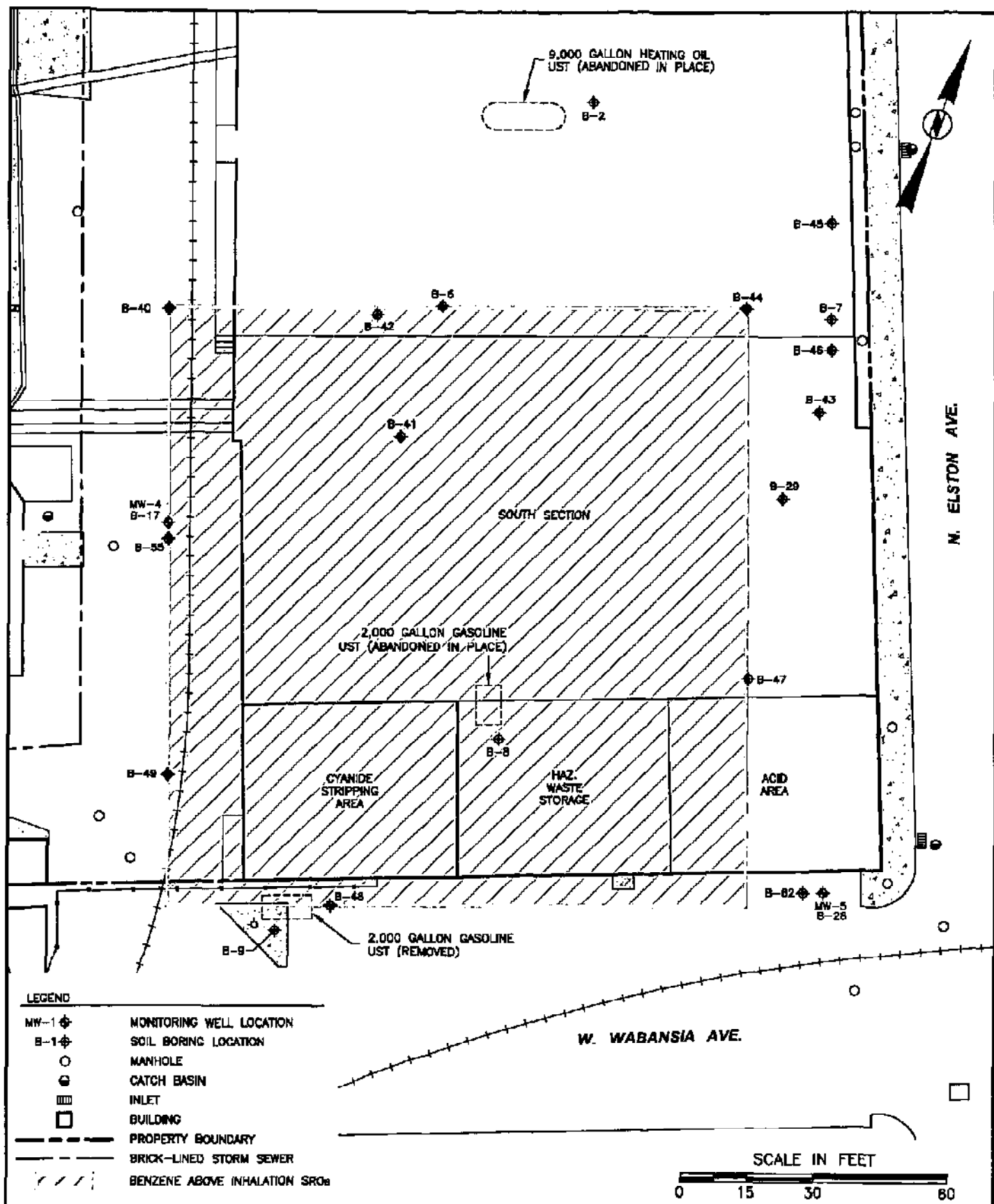





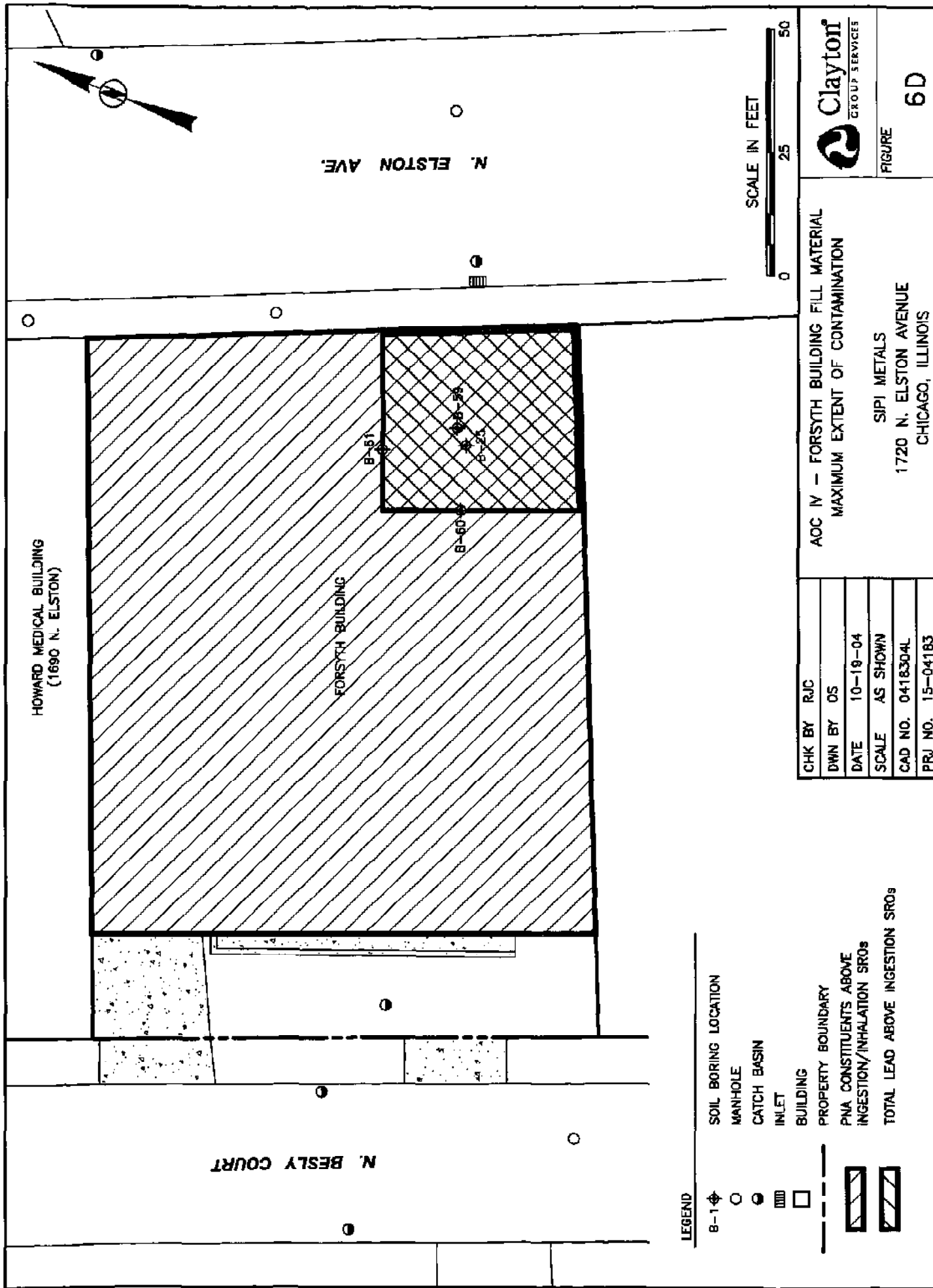








CHECK BY RJC	AOC III - ABANDONED 2,000-GALLON GASOLINE UST MAXIMUM EXTENT OF CONTAMINATION  SIPI METALS 1720 N. ELSTON AVENUE CHICAGO, ILLINOIS	 FIGURE 6C
DRAWN BY OS		
DATE 10-14-04		
SCALE AS SHOWN		
CAD NO. 0418304Q		
PRJ NO. 15-04153		







## **TABLES**

TABLE 1  
Soil/Groundwater Grab Sampling  
Extent of Impact Assessment  
SRI Metals / Chicago, Illinois

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DEC 03 2004  
REVIEWER MD

AREA OF INVESTIGATION	DESCRIPTION	BORING ID	Soil Sample Depth (ft BGS)	NO. OF GROUND- WATER GRABS SAMPLED	NO. OF BOR. SAMPLES	ANALYSES																	
						VOCs	STX	MTBE	Naphthalene	SVOCs	PAHs	TPH	PCBs	Total Aromatic	Total Lead	Total Mercury	Target Metals	TCLP Metals	TCLP Lead	pH	DOC		
REC #1	Former Plating Solution Process Area	B-1	0-4	0	1	1										1		1		1			
REC #2	1,000-Gal. Abandoned Heating OIL TUB	B-2	0-4.5 B-4	1	2						2												
		B-20	2	2*	1						2								1				
		B-35	3.5-10	0	2				1			1											
		B-36	0	0	2																		
REC #2/4	Historic Foundry Operations/Pits Material	B-3	1-2	1	1	1					1					1		1		1			
		B-5	4-8	0	7			1			1					1		1		1			
		B-6	2	2	2			1			1					1		1		1			
		B-7	1-2	0	7			1			1					1		1		1			
		B-29	2	2*	1						2								1				
		B-30	N/A	2*	0																		
		B-32	0	0	2										1	1							
		B-37	0	0	1										1	1							
		B-38	0	0	2																		
		B-39	3.5-10	0	2				1			1					1				1		
		B-40	2	0	1																		
		B-41	2	0	1																		
		B-42	0	0	1			1			1										1		
		B-43	0	0	1																		
		B-44	1.5	2	1																1		
		B-45	2	0	1										1					1			
B-46	3.5-10	0	2					2								2			2				
REC #6	Potential Transformer Release	B-4	1.5-3.2	0	2						2		2			2		2		2	1		
		B-21	3.5-7	0	2	1				2		2				2				1			
		B-32	0	0	1						1		1	1						1			
		B-33	0	0	1						1		1	1						1			
		B-34	0	0	1						1		1	1						1			
		B-35	0	0	1								1	1									
REC #8	Potential Hydraulic Oil Release	B-45	0-0	0	1							1	1										
		B-2	4-8	0	1			1			1						1		1				
		B-36	0	0	1									1	1								
		B-37	0	0	1									1	1								
REC #27	Potential Oil Release from Compressor	B-38	0	0	1					1								1			1		
		B-9	0	1	1	1	1				1					1			1		1		
		B-39	2.5-10	0	2				1			1											
		B-40	2	0	1				1														
		B-41	2	0	1				1														
B-42	0	0	1			1		1									1			1			

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TABLE 1  
SoB/Groundwater Grab Sampling  
Extent of Impact Assessment  
BPI Metals / Chicago, Illinois

AREA OF INVESTIGATION	DESCRIPTION	BORING ID	Soil Sample Depth (FT BGS)	NO. OF GROUND-WATER GRAB SAMPLES	NO. OF SOIL SAMPLES	ANALYSES																
						VOCs	STXs	MTBE	Naphthalene	SVOCs	PAHs	TPH	PCBs	Total Arsenic	Total Lead	Total Metals	Target Metals	TCLP Metals	TCLP Lead	pH	FOC	
REC #8	Potential Hydrocarbon Release	B-7	1-2	0	1		1				1						1		1			
		B-42	2	0	2						1								1			
		B-44	1.5	0	1														1			
		B-46	2	0	1														1			
		B-48	2 & 10	0	2					2							2		2			
REC #9	Abandoned 2,000 Gallon Gasoline UST	B-4	2-4 & 3-4	1	2	1	2				1						2		2		2	1
		B-47	2	0	1		1												1			
		B-48	2	0	1		1	1			1											
		B-50	2	0	1		1								1							
REC #10	2,000 Gallon Gasoline UST - Removed	B-2	4-6, 9-12, 10-12	0	3		2															
		B-48	2	0	1			1	1		1											
		B-12	4-6	0	1		1				1	1										
REC #11	Former Bulk Oil Storage	B-19	4-6	0	1		1				1											
		B-11/8/W-2	4-6	0	1		1				1											
		B-18	2-4 & 3-3	0	2		2				2											
		B-30	4-6	0	1						1	1										
		B-61	2-4	0	1						1	1										
REC #12	Former Slag Pile	B-13	1.5 & 3	0	2												2		2		2	1
		B-38	2	0	1																	
REC #13	Brick Used Storm Sewer	B-14/W-2	5 & 9	0	2												2			2	2	1
REC #14	Former 10,000-Gallon Heating Oil USTs	B-18	2-1 & 3-3	0	2		2				2											
		B-64	4-6	0	1							1	1									
REC #15	Former Fuel Diesel Leaking Area	B-16	2 & 4	0	2												2		2		2	
		B-17/8/W-4	1.5 & 4	0	2												2		2		2	
		B-50	2	0	1					1												
REC #16	Railroad Tracks	B-18	0-2 & 3-3	0	2	2					2						2		2		2	
		B-18	0-2 & 4-6	0	2	2					2						2		2		2	
		B-20	0-2 & 3-4	0	2	2					2						2		2		2	
		B-58	2	0	1																	
		B-57	2	0	1																	
		B-58	2	0	1																	

TABLE 1  
Soil/Groundwater Grid Sampling  
Extent of Impact Assessment  
SPI Metals / Chicago, Illinois

AREA OF INVESTIGATION	DESCRIPTION	BORING ID	Soil Sample Depth (FT BGS)	NO. OF GROUND-WATER GRAB SAMPLES	NO. OF SOIL SAMPLES	ANALYSES																	
						VOCs	BTEX	MTBE	Naphthalenes	BVOCs	PAHs	TPH	PCBs	Total Arsenic	Total Lead	Total Metals	Target Metals	YCLP Metals	YCLP Lead	pH	DOC		
REC #17	Potential Solvent Usage	B-21/6W-4	0-2	0	1	1																	
REC #18	Swaley Building/Potential Hydraulic Oil Release	B-22	4-6	1	1	1					1						1						
		B-23	2-2 & 5-15	0	2	2					2												
REC #19	Former Locomotive Warehouse	B-24	4-6 & 5-2	0	2	2					2												
REC #20	Perry Building Unknown Fill Material	B-25	2-4 & 5-2	0	2	2					2						2		2		2		
		B-26	12	0	1					1					1								
		B-27	5	0	1					1					1								
		B-28	5	0	1					1					1								
		B-29	5	0	1					1					1								
Monitoring Wells	Average Downgradient Property Boundary	B-29/30/31	2-4	0	1	1					1						1		1		1		
		B-32	2	0	1					1								1					
		B-33	4	0	2														1				
	Average Upgradient Property Boundary	B-27/30/31	1-5	0	1												1		1		1		
		B-32	2 & 5	0	2						2												
Totals		61		7	104	20	28	2	5	11	50	7	10	7	22	31	12	25	19	37	4		

1 Analysis was conducted for groundwater and soil  
2 Analysis conducted on groundwater only  
\* Two samples were collected, unfiltered and filtered

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**TABLE 2A**  
**Soil Analytical Data - VOCs, SVOCs, PCBs, and TPH**

SIPI Metals / Chicago, Illinois

COMPOUNDS	Tier 1 Ingestion Exposure Route *	Tier 1 Inhalation Exposure Route *	Tier 1 Groundwater Ingestion Class II *	Toxicity Characteristic Hazardous Waste **	SAMPLE LOCATIONS AND DEPTH											
					B-1A 2-4 ft	B-2		B-3A 1-2 ft	B-4		B-5A 4-6 ft	B-6A 2 ft	B-7A 1-2 ft	B-8		
						A 2-4 ft	B 6-8 ft		A 1-5 ft	B 3 ft				A 2-4 ft	B 6-8 ft	
VOCs (ug/kg)																
Benzene	100,000	1,500	170	-	<5.0	<2.0	<2.0	<5.0	NA	NA	<2.0	<2.0	<2.0	1,850	<2.0	<2.0
1,1-Dichloroethane	200,000,000	130,000	110,000	-	<5.0	NA	NA	<5.0	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	1,800,000	300,000	300	-	<5.0	NA	NA	<5.0	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	20,000,000	1,200,000	1,100	-	<5.0	NA	NA	<5.0	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	41,000,000	3,100,000	3,400	-	<5.0	NA	NA	<5.0	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl benzene	2,000,000	58,500	19,000	-	<5.0	<5.0	<5.0	<5.0	NA	NA	<5.0	5	<5.0	55.2	<5.0	<5.0
Toluene	410,000,000	42,000	29,000	-	<5.0	<5.0	<5.0	<5.0	NA	NA	<5.0	<5.0	<5.0	26	<5.0	<5.0
Trichloroethene	520,000	8,900	300	-	<5.0	NA	NA	<5.0	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl chloride	7,900	1,100	70	-	<10	NA	NA	<10	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	410,000,000	320,000	150,000	-	<5.0	<5.0	<5.0	<5.0	NA	NA	<5.0	6.4	<5.0	61.4	<5.0	<5.0
MTBE	2,000,000	140,000	320	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SVOCs (ug/kg)																
Naphthalene	4,100,000	1,900	18,000	-	NA	<25	<25	<25	574	1,680	<25	2,590	6,530	NA	NA	NA
Acenaphthylene	-	-	-	-	NA	<50	<50	<50	287	998	<50	<50	1,370	NA	NA	NA
Acenaphthene	120,000,000	-	2,900,000	-	NA	<50	<50	<50	675	1,600	<50	61	4,560	NA	NA	NA
Fluorene	82,000,000	-	2,800,000	-	NA	<50	<50	<50	884	1,980	<50	163	5,160	NA	NA	NA
Phenanthrene	-	-	-	-	NA	<50	<50	<50	8,060	14,500	233	1,200	70,600	NA	NA	NA
Anthracene	610,000,000	-	59,000,000	-	NA	<50	<50	<50	95	3,970	<50	170	16,100	NA	NA	NA
Fluoranthene	82,000,000	-	21,000,000	-	NA	<50	<50	<50	648	9,220	244	868	203,000	NA	NA	NA
Pyrene	61,000,000	-	21,000,000	-	NA	<50	<50	<50	828	19,200	206	879	182,000	NA	NA	NA
Benzo(a)anthracene	8,000	-	8,000	-	NA	13	10	319	3,970	9,330	117	340	106,000	NA	NA	NA
Chrysene	780,000	-	800,000	-	NA	<50	<50	<50	300	4,340	10,300	151	492	96,600	NA	NA
Benzo(b)fluoranthene	8,000	-	25,000	-	NA	14	<11	252	3,360	9,930	100	305	75,200	NA	NA	NA
Benzo(k)fluoranthene	78,000	-	250,000	-	NA	<11	<11	255	3,160	6,650	95	213	97,900	NA	NA	NA
Benzo(a)pyrene	800	-	82,000	-	NA	<15	<15	317	4,040	10,400	112	340	110,000	NA	NA	NA
Indeno(1,2,3-cd)pyrene	8,000	-	69,000	-	NA	<29	<29	173	2,780	7,310	75	196	69,200	NA	NA	NA
Dibenz(a,h)anthracene	800	-	7,600	-	NA	<20	<20	55	675	1,540	21	70	16,200	NA	NA	NA
Benzo(g,h,i)perylene	-	-	-	-	NA	<50	<50	144	2,540	6,470	75	237	37,500	NA	NA	NA
bis(2-Ethylhexyl)phthalate	410,000	31,000,000	31,000,000	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	290,000	-	2,800	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	-	-	-	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	-	-	-	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCBs (ug/kg)																
Aroclor 1254	1,000	-	-	50,000	NA	NA	NA	NA	857	3,440	NA	NA	NA	NA	NA	NA
Aroclor 1260	1,000	-	-	50,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TPH (mg/kg)																
Gasoline	-	-	-	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diesel	-	-	-	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Oil	-	-	-	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total TPH	-	-	-	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

NOTES:

Only detected compounds are included in this table.

\* Tier 1 SRQ for Commercial/Industrial Properties

\*\* Cleanup objective from 40 CFR Part 261.24

\*\*\* TACO Sector 742.2.15

\*\*\*6,000 above 1 meter / 2,000 below 1 meter

= above Tier 1 Ingestion Exposure Route SRQs

= above Tier 1 Inhalation Exposure Route SRQs

= above Groundwater Ingestion Exposure Route

= above Soil Attenuation Capacity

**NOTES:**  
 Only detected compounds are included in this table.  
 \* Tier 1 SRO for Commercial/Industrial Properties  
 \*\* Cleanup objective from 40 CFR Part 261.24  
 \*\*\* TACO Section 742.215  
 NA = Not analyzed

**TABLE 2A**  
**Soil Analytical Data - VOCs, SVOCs, PCBs, and TPH**  
SiPI Metals / Chicago, Illinois

COMPOUNDS	Tier 1 Ingestion Exposure Route *	Tier 1 Inhalation Exposure Route *	Tier 1 Groundwater Ingestion Class II *	Toxicity Characteristic Hazardous Waste **	SAMPLE LOCATIONS AND DEPTH									
					B-9		B-10A		B-11/ MW-3A		B-12		B-15	
					A 4-6 ft	B 8-10 ft	C 10-12 ft	A 4-6 ft	B 4-6 ft	A 4-6 ft	A 2-4 ft	B 6-8 ft	A 2-4 ft	B 6-8 ft
<b>VOCs (ug/kg)</b>														
Benzene	100,000	1,600	170	-	<2.0	<2.0	<2.0	<2.0	5.2	<2.0	<2.0	<2.0	<2.0	<5.0
1,1-Dichloroethane	200,000,000	130,000	110,000	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	<5.0
1,1,1-Trichloroethane	1,800,000	300,000	300	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	<5.0
cis-1,2-Dichloroethane	20,000,000	1,200,000	1,100	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	<5.0
trans-1,2-Dichloroethane	41,000,000	3,100,000	3,400	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	<5.0
Ethyl benzene	2,000,000	58,000	19,000	-	<5.0	<5.0	<5.0	<5.0	5.1	<5.0	<5.0	<5.0	<5.0	<5.0
Toluene	410,000,000	42,000	29,000	-	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Trichloroethene	520,000	8,900	300	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	<5.0
Vinyl chloride	7,900	1,100	70	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	<10
Xylenes (total)	410,000,000	320,000	150,000	-	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
MTBE	2,000,000	140,000	320	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
<b>SVOCs (ug/kg)</b>														
Naphthalene	4,100,000	1,800	18,000	-	NA	NA	NA	NA	572	7,430	182	<25	44	<25
Acenaphthylene	-	-	-	-	NA	NA	NA	NA	<50	518	71	<50	<50	<50
Acenaphthene	120,000,000	-	2,900,000	-	NA	NA	NA	NA	818	1,420	87	<50	<50	<50
Fluorene	82,000,000	-	2,800,000	-	NA	NA	NA	NA	1,130	1,740	103	<50	<50	<50
Phenanthrene	-	-	-	-	NA	NA	NA	NA	371	8,480	1,250	<50	204	<50
Anthracene	610,000,000	-	59,000,000	-	NA	NA	NA	NA	428	2,560	332	<50	<50	<50
Fluoranthene	82,000,000	-	21,000,000	-	NA	NA	NA	NA	894	19,600	2,780	<50	134	<50
Pyrene	61,000,000	-	21,000,000	-	NA	NA	NA	NA	996	28,500	2,890	<50	116	<50
Benz(a)anthracene	8,000	-	8,000	-	NA	NA	NA	NA	416	12,900	1,740	<6.7	77	<8.7
Chrysene	780,000	-	800,000	-	NA	NA	NA	NA	401	12,400	1,870	<50	97	<50
Benz(b)fluoranthene	8,000	-	25,000	-	NA	NA	NA	NA	303	14,600	1,590	<11	67	<11
Benz(k)fluoranthene	78,000	-	250,000	-	NA	NA	NA	NA	328	8,690	1,710	<11	46	<11
Benzofluoranthene	800	-	82,000	-	NA	NA	NA	NA	345	22,400	1,980	<15	82	<15
Indeno(1,2,3-cd)pyrene	8,000	-	69,000	-	NA	NA	NA	NA	216	9,550	1,150	<29	35	<29
Dibenz(a,h)anthracene	800	-	7,600	-	NA	NA	NA	NA	68	2,590	318	<20	<20	<20
Benz(g,h,i)perylene	-	-	-	-	NA	NA	NA	NA	182	9,070	967	<50	<50	<50
bis(2-Ethylhexyl)phthalate	410,000	31,000,000	31,000,000	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	290,000	-	2,800	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	-	-	-	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	-	-	-	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
<b>PCBs (ug/kg)</b>														
Aroclor 1254	1,000	-	-	50,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor 1260	1,000	-	-	50,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
<b>TPH (mg/kg)</b>														
Gasoline	-	-	-	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Diesel	-	-	-	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Oil	-	-	-	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total TPH	-	-	-	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

**NOTES:**  
Only detected compounds are included in this table.  
\* Tier 1 SRO for Commercial/Industrial Properties  
\*\* Cleanup objective from 49 CFR Part 261.24  
\*\*\* TACO Section 742.215  
NA = Not analyzed

**TABLE 2A**  
**Soil Analytical Data - VOCs, SVOCs, PCBs, and TPH**

SIPI Metals / Chicago, Illinois

COMPOUNDS	Tier 1 Ingestion Exposure Route *	Tier 1 Inhalation Exposure Route *	Tier 1 Groundwater Ingestion Class II *	Toxicity Characteristic Hazardous Waste **	SAMPLE LOCATIONS AND DEPTH											
					B-19			B-20			B-21/ MW-6A			B-22A		
					A 0-2 ft	B 4-6 ft		A 0-2 ft	B 2-4 ft		B 0-2 ft	MW-6A 0-2 ft		A 0-2 ft	B 8-10 ft	
VOCs (ug/kg)																
Benzene	100,000	1,600	170	-	<5.0	<5.0		<5.0	<5.0		<5.0	<5.0		<5.0	<5.0	
1,1-Dichloroethane	200,000,000	130,000	110,000	-	<5.0	<5.0		<5.0	<5.0		<5.0	<5.0		<5.0	<5.0	
1,1,1-Trichloroethane	1,800,000	300,000	300	-	<5.0	<5.0		<5.0	<5.0		<5.0	<5.0		<5.0	<5.0	
cis-1,2-Dichloroethene	20,000,000	1,200,000	1,100	-	<5.0	<5.0		<5.0	<5.0		<5.0	<5.0		<5.0	<5.0	
trans-1,2-Dichloroethene	41,000,000	3,100,000	3,400	-	<5.0	<5.0		<5.0	<5.0		<5.0	<5.0		<5.0	<5.0	
Ethyl benzene	2,000,000	59,000	19,000	-	<5.0	<5.0		<5.0	<5.0		<5.0	<5.0		<5.0	<5.0	
Toluene	410,000,000	42,000	29,000	-	<5.0	<5.0		<5.0	<5.0		<5.0	<5.0		<5.0	<5.0	
Trichloroethene	520,000	8,900	300	-	<5.0	<5.0		<5.0	<5.0		<5.0	<5.0		<5.0	<5.0	
Vinyl chloride	7,900	1,100	70	-	<10	<10		<10	<10		<10	<10		<10	<10	
Xylenes (total)	410,000,000	320,000	150,000	-	<5.0	<5.0		<5.0	<5.0		<5.0	<5.0		<5.0	<5.0	
MTBE	2,000,000	140,000	320	-	NA	NA		NA	NA		NA	NA		NA	NA	
SVOCs (ug/kg)																
Naphthalene	4,100,000	1,800	18,000	-	67	<25		170	150		NA	NA		<25	<25	
Acenaphthylene	-	-	-	-	<50	<50		<50	<50		NA	NA		<50	<50	
Acenaphthene	120,000,000	-	2,900,000	-	<50	<50		<50	<50		NA	NA		<50	<50	
Fluorene	82,000,000	-	2,800,000	-	<50	<50		<50	<50		NA	NA		<50	<50	
Phenanthrene	-	-	-	-	210	<50		1,200	363		NA	NA		<50	<50	
Anthracene	610,000,000	-	59,000,000	-	<50	<50		108	<50		NA	NA		<50	<50	
Fluoranthene	82,000,000	-	21,000,000	-	264	<50		1,170	242		NA	NA		<50	<50	
Pyrene	51,000,000	-	21,000,000	-	247	<50		1,180	282		NA	NA		<50	<50	
Benzo(a)anthracene	8,000	-	8,000	-	142	<3.7		675	151		NA	NA		<8.7	<8.7	
Chrysene	780,000	-	800,000	-	160	<50		779	166		NA	NA		<50	<50	
Benzo(b)fluoranthene	8,000	-	25,000	-	128	<11		683	134		NA	NA		<11	<11	
Benzo(k)fluoranthene	78,000	-	250,000	-	157	<11		540	126		NA	NA		<11	<11	
Benzo(a)pyrene	600	-	82,000	-	171	<15		706	174		NA	NA		<15	<15	
Indeno(1,2,3-cd)pyrene	8,000	-	69,000	-	110	<29		440	95		NA	NA		<29	<29	
Dibenz(a,h)anthracene	800	-	7,600	-	28	<20		127	27		NA	NA		<20	<20	
Benzofluoranthene	-	-	-	-	94	<50		370	83		NA	NA		<50	<50	
bis(2-Ethylhexyl)phthalate	410,000	31,000,000	31,000,000	-	NA	NA		NA	NA		NA	NA		NA	NA	
Carbazole	290,000	-	2,800	-	NA	NA		NA	NA		NA	NA		NA	NA	
Dibenzofuran	-	-	-	-	NA	NA		NA	NA		NA	NA		NA	NA	
2-Methylnaphthalene	-	-	-	-	NA	NA		NA	NA		NA	NA		NA	NA	
PCBs (ug/kg)																
Aroclor 1254	1,000	-	-	50,000	NA	NA		NA	NA		NA	NA		NA	NA	
Aroclor 1260	1,000	-	-	50,000	NA	NA		NA	NA		NA	NA		NA	NA	
TPH (mg/kg)																
Gasoline	-	-	-	-	NA	NA		NA	NA		NA	NA		NA	NA	
Diesel	-	-	-	-	NA	NA		NA	NA		NA	NA		NA	NA	
Oil	-	-	-	-	NA	NA		NA	NA		NA	NA		NA	NA	
Total TPH	***6,000 above 1 meter / 2,000 below 1 meter	-	-	-	NA	NA		NA	NA		NA	NA		NA	NA	

Only detected compounds are included in this table.

\* Tier 1 SRO for Commercial/Industrial Properties

\*\* Cleanup objective from 40 CFR Part 261.24

\*\*\* TACO Section 742.215

NA = Not analyzed

**BOLD** = above Tier 1 Ingestion Exposure Route SROs  
= above Tier 1 Inhalation Exposure Route SROs  
= above Groundwater Ingestion Exposure Route  
= above Soil Attenuation Capacity

TABLE 2A  
Soil Analytical Data - VOCs, SVOCs, PCBs, and TPH

SiPi Metals / Chicago, Illinois

COMPOUNDS	Tier 1 Ingestion Exposure Route *	Tier 1 Inhalation Exposure Route *	Tier 1 Groundwater Ingestion Class II *	Toxicity Characteristic Hazardous Waste **	SAMPLE LOCATIONS AND DEPTH												
					B-29 MW-5 2-4 ft	B-31		B-32 3 ft	B-33 3 ft	B-34 3 ft	B-35 3 ft	B-36 9 ft	B-38 2 ft	B-39 10 ft			
						3 ft	7 ft										
VOCs (ug/kg)																	
Benzene	100,000	1,600	170	-	<5.0	NA	NA	6.4	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	200,000,000	130,000	110,000	-	<5.0	NA	NA	46.8	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	1,800,000	300,000	300	-	<5.0	NA	NA	299	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	20,000,000	1,200,000	1,100	-	<5.0	NA	NA	89,200	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	4,000,000	3,100,000	3,400	-	<5.0	NA	NA	2,550	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethyl benzene	2,000,000	58,000	19,000	-	<5.0	NA	NA	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	410,000,000	42,000	29,000	-	<5.0	NA	NA	114	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	520,000	8,900	300	-	<5.0	NA	NA	8,500	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vinyl chloride	7,900	1,100	70	-	<10	NA	NA	7,840	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	410,000,000	320,000	150,000	-	<5.0	NA	NA	8	NA	NA	NA	NA	NA	NA	NA	NA	NA
MTBE	2,000,000	140,000	320	-	NA	NA	NA	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
SVOCs (ug/kg)																	
Naphthalene	4,100,000	1,800	18,000	-	721	<25	1,760	<330	364	<25	205	NA	<330	NA	<330	NA	NA
Acenaphthylene	-	-	-	-	91	<50	991	<330	75	<50	135	NA	<330	NA	<330	NA	NA
Acenaphthene	120,000,000	-	2,900,000	-	99	<50	1,170	<330	75	<50	116	NA	<330	NA	<330	NA	NA
Fluorene	82,000,000	-	2,800,000	-	99	<50	1,420	<330	<50	<50	154	NA	<330	NA	<330	NA	NA
Phenanthrene	-	-	-	-	1,510	<50	14,100	<330	681	<50	1,710	NA	<330	NA	<330	NA	NA
Anthracene	610,000,000	-	59,000,000	-	494	<50	3,740	<330	70	<50	460	NA	<330	NA	<330	NA	NA
Fluoranthene	82,000,000	-	21,000,000	-	4,290	<50	17,300	<330	237	<50	2,300	NA	<330	NA	<330	NA	NA
Pyrene	61,000,000	-	21,000,000	-	4,740	<50	15,600	<330	487	<50	2,770	NA	<330	NA	<330	NA	NA
Benzo(a)anthracene	8,000	-	8,000	-	3,400	<8.7	8,240	<330	202	9.3	1,360	NA	<330	NA	<330	NA	NA
Chrysene	780,000	-	800,000	-	3,060	<50	8,450	<330	263	<50	1,390	NA	<330	NA	<330	NA	NA
Benzo(b)fluoranthene	8,000	-	25,000	-	3,590	<11	5,050	<330	193	<11	1,330	NA	<330	NA	<330	NA	NA
Benzo(k)fluoranthene	78,000	-	250,000	-	2,660	<11	7,910	<330	360	<11	1,480	NA	<330	NA	<330	NA	NA
Benzo(a)pyrene	800	-	82,000	-	4,070	<15	7,830	<90	318	<15	1,720	NA	<90	NA	<330	NA	NA
Indeno(1,2,3-cd)pyrene	8,000	-	69,000	-	2,050	<29	3,120	<330	320	<29	1,300	NA	<330	NA	<330	NA	NA
Dibenz(a,h)anthracene	800	-	7,500	-	527	<20	1,340	<90	70	<20	305	NA	<90	NA	<330	NA	NA
Benzo(g,h,i)perylene	-	-	-	-	1,530	<50	3,390	<330	320	<50	1,170	NA	<330	NA	<330	NA	NA
bis(2-Ethylhexyl)phthalate	410,000	31,000,000	31,000,000	-	NA	NA	531	<330	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole	290,000	-	2,800	-	NA	NA	4,530	<330	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran	-	-	-	-	NA	NA	1,010	<330	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	-	-	-	-	NA	NA	1,350	<330	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCBs (ug/kg)																	
Aroclor 1254	1,000	-	-	50,000	NA	NA	1,190	<160	2,980	<160	<160	<160	NA	NA	NA	NA	NA
Aroclor 1260	1,000	-	-	50,000	NA	NA	<150	<160	<160	<160	935	197	NA	NA	NA	NA	NA
TPH (mg/kg)																	
Gasoline	-	-	-	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<10
Diesel	-	-	-	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	47
Oil	-	-	-	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<10
Total TPH	***6,000 above 1 meter / 2,000 below 1 meter				NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	47

NOTES:

Only detected compounds are included in this table.

\* Tier 1 SRO for Commercial/Industrial Properties

\*\* Cleanup objective from 40 CFR Part 261.24

\*\*\* TACO Section 742.215

= above Tier 1 Ingestion Exposure Route SROs

= above Tier 1 Inhalation Exposure Route SROs

= above Groundwater Ingestion Exposure Route

= above Soil Attenuation Capacity

NOTES:  
 \* Only detected compounds are included in this table.  
 \*\* Tier 1 SRO for Commercial/Industrial Properties  
 \*\*\* Cleanup objective from 40 CFR Part 261.24  
 TACO Section 742.215  
 NA = Not analyzed

**TABLE 2A**  
**Soil Analytical Data - VOCs, SVOCs, PCBs, and TPH**  
**SIPI Metals / Chicago, Illinois**

COMPOUNDS	Tier 1 Ingestion Exposure Route *	Tier 1 Inhalation Exposure Route *	Tier 1 Groundwater Ingestion Class II *	Toxicity Characteristic Hazardous Waste **	SAMPLE LOCATIONS AND DEPTH															
					B-40 2 ft	B-41 2 ft	B-42 9 ft	B-43 2 ft	B-46		B-47 3 ft	B-48 3 ft	B-49 3 ft	B-50 4-6 ft						
									6 ft	10 ft										
VOCs (ug/kg)																				
Benzene	100,000	1,600	170	-	NA	NA	<2.0	NA	NA	NA	<2.0	<2.0	NA	NA	<2.0	NA	NA	NA	NA	
1,1-Dichloroethane	200,000,000	130,000	110,000	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
1,1-Dichloroethene	1,800,000	300,000	300	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
cis-1,2-Dichloroethene	20,000,000	1,200,000	1,100	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
trans-1,2-Dichloroethene	41,000,000	3,100,000	8,400	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Ethyl benzene	2,000,000	58,000	19,000	-	NA	NA	<5.0	NA	NA	NA	<5.0	<5.0	NA	NA	<5.0	<5.0	NA	NA	NA	
Toluene	410,000,000	42,000	29,000	-	NA	NA	<5.0	NA	NA	NA	<5.0	<5.0	NA	NA	<5.0	<5.0	NA	NA	NA	
Trichloroethene	520,000	8,900	300	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Vinyl chloride	7,900	1,100	70	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Xylenes (total)	410,000,000	320,000	150,000	-	NA	NA	<5.0	NA	NA	NA	<5.0	<5.0	NA	NA	<5.0	<5.0	NA	NA	NA	
MTBE	2,000,000	140,000	320	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
SVOCs (ug/kg)																				
Naphthalene	4,100,000	1,800	18,000	-	698	703	<330	128	<330	<330	NA	185	NA	NA	NA	NA	NA	1,940	NA	
Acenaphthylene	-	-	-	-	NA	NA	<330	230	<330	<330	NA	<50	NA	NA	<50	NA	NA	2,590	NA	
Acenaphthene	120,000,000	-	2,900,000	-	NA	NA	<330	<50	<330	<330	NA	<50	NA	NA	<50	NA	NA	3,450	NA	
Fluorene	82,000,000	-	2,800,000	-	NA	NA	<330	<50	<330	<330	NA	<50	NA	NA	<50	NA	NA	22,800	NA	
Phenanthrene	-	-	-	-	NA	NA	<330	546	<330	<330	NA	302	NA	NA	<330	NA	NA	7,720	NA	
Anthracene	610,000,000	-	59,000,000	-	NA	NA	<330	139	<330	<330	NA	89	NA	NA	<330	NA	NA	39,100	NA	
Fluoranthene	82,000,000	-	21,000,000	-	NA	NA	<330	2,190	<330	<330	NA	570	NA	NA	<330	NA	NA	29,500	NA	
Pyrene	61,000,000	-	21,000,000	-	NA	NA	<330	3,070	<330	<330	NA	911	NA	NA	<330	NA	NA	15,200	NA	
Benzofluoranthene	8,000	-	8,000	-	NA	NA	<330	1,560	<330	<330	NA	550	NA	NA	<330	NA	NA	13,300	NA	
Chrysene	780,000	-	800,000	-	NA	NA	<330	1,390	<330	<330	NA	539	NA	NA	<330	NA	NA	14,800	NA	
Benzobenzofluoranthene	8,000	-	25,000	-	NA	NA	<330	1,930	<330	<330	NA	738	NA	NA	<330	NA	NA	25,400	NA	
Benzokilfluoranthene	78,000	-	250,000	-	NA	NA	<330	1,180	<330	<330	NA	546	NA	NA	<330	NA	NA	13,200	NA	
Benzofluoranthene	800	-	82,000	-	NA	NA	<90	2,240	<90	<90	NA	778	NA	NA	<90	NA	NA	3,970	NA	
Indeno(1,2,3-cd)pyrene	8,000	-	69,000	-	NA	NA	<330	1,160	<330	<330	NA	523	NA	NA	<330	NA	NA	12,800	NA	
Dibenz(a,h)anthracene	800	-	7,600	-	NA	NA	<90	312	<90	<90	NA	173	NA	NA	<90	NA	NA	NA	NA	
Benzofluoranthene	-	-	-	-	NA	NA	<330	896	<330	<330	NA	395	NA	NA	<330	NA	NA	<125	NA	
bis(2-Ethylhexyl)phthalate	410,000	31,000,000	31,000,000	-	NA	NA	<330	NA	<330	<330	NA	NA	NA	NA	<330	NA	NA	3,630	NA	
Carbazole	290,000	-	2,800	-	NA	NA	<330	NA	<330	<330	NA	NA	NA	NA	<330	NA	NA	<125	NA	
Dibenzofuran	-	-	-	-	NA	NA	<330	NA	<330	<330	NA	NA	NA	NA	<330	NA	NA	NA	NA	
2-Methylnaphthalene	-	-	-	-	NA	NA	<330	NA	<330	<330	NA	NA	NA	NA	<330	NA	NA	NA	NA	
PCBs (ug/kg)																				
Aroclor 1254	1,000	-	-	50,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Aroclor 1260	1,000	-	-	50,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
TPH (mg/kg)																				
Gasoline	-	-	-	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Diesel	-	-	-	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Oil	-	-	-	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Total TPH	***g,000 above 1 meter / 2,000 below 1 meter				NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	3,630	NA

NOTES:

Only detected compounds are included in this table.

\* Tier 1 SRO for Commercial/Industrial Properties

\*\* Cleanup objective from 40 CFR Part 261.24

\*\*\* TACO Section 742.2.15

= above Tier 1 Ingestion Exposure Route SROs

= above Tier 1 Inhalation Exposure Route SROs

= above Groundwater Ingestion Exposure Route

= above Soil Attenuation Capacity

**NOTES:**  
 \* Only detected compounds are included in this table.  
 \* Tier 1 SRO for Commercial/Industrial Properties  
 \*\* Cleanup objective from 40 CFR Part 261.24  
 \*\*\* TACO Section 742.215  
 NA = Not analyzed

**TABLE 2A**  
**Soil Analytical Data - VOCs, SVOCs, PCBs, and TPH**  
**SiPI Metals / Chicago, Illinois**

COMPOUNDS	Tier 1 Ingestion Exposure Route *	Tier 1 Inhalation Exposure Route *	Tier 1 Groundwater Ingestion Class II *	Toxicity Characteristic Hazardous Waste **	SAMPLE LOCATIONS AND DEPTH							
					B-51	B-54	B-55	B-59	B-60	B-61	B-62	
					2-4 ft	4-6 ft	2 ft	12 ft	5 ft	5 ft	3 ft	6 ft
VOCs (ug/kg)												
Benzene	100,000		1,600	170	-	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	200,000,000	130,000	110,000	-	-	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	1,800,000	300,000	300	-	-	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	20,000,000	1,200,000	1,100	-	-	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	41,000,000	3,100,000	3,400	-	-	NA	NA	NA	NA	NA	NA	NA
Ethyl benzene	2,000,000	58,000	19,000	-	-	NA	NA	NA	NA	NA	NA	NA
Toluene	410,000,000	42,000	28,000	-	-	NA	NA	NA	NA	NA	NA	NA
Trichloroethene	520,000	8,900	300	-	-	NA	NA	NA	NA	NA	NA	NA
Vinyl chloride	7,900	1,100	70	-	-	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	410,000,000	320,000	150,000	-	-	NA	NA	NA	NA	NA	NA	NA
MTBE	2,000,000	140,000	320	-	-	NA	NA	NA	NA	NA	NA	NA
SVOCs (ug/kg)												
Naphthalene	4,100,000	1,800	18,000	-	-	565	NA	<330	<25	284	103	140
Acenaphthylene	-	-	-	-	-	153	NA	<330	<50	107	<50	<50
Acenaphthene	120,000,000	-	2,900,000	-	-	344	NA	<330	<50	533	339	<50
Fluorene	82,000,000	-	2,800,000	-	-	660	NA	<330	<50	640	46	<50
Phenanthrene	-	-	-	-	-	2,930	NA	566	<50	3,290	3,600	752
Anthracene	610,000,000	-	59,000,000	-	-	733	NA	<330	<50	1,050	1,220	255
Fluoranthene	82,000,000	-	21,000,000	-	-	2,470	NA	1,450	<50	4,160	5,320	1,570
Pyrene	61,000,000	-	21,000,000	-	-	2,020	NA	1,370	<50	4,940	5,840	2,020
Benzofluoranthene	8,000	-	8,000	-	-	1,530	NA	791	<87	2,470	2,720	1,180
Chrysene	780,000	-	800,000	-	-	1,440	NA	887	<50	2,280	2,410	1,030
Benzobifluoranthene	8,000	-	25,000	-	-	1,160	NA	734	<11	1,710	2,300	1,260
Benzokjfluoranthene	78,000	-	250,000	-	-	970	NA	504	<11	2,660	2,940	858
Benzofluoranthene	800	-	82,000	-	-	1,880	NA	766	<15	2,790	3,660	1,410
Indeno(1,2,3-cd)pyrene	8,000	-	69,000	-	-	901	NA	392	<29	1,870	1,950	667
Dibenz(a,h)anthracene	800	-	7,800	-	-	244	NA	171	<20	693	591	293
Benzofluoranthene	-	-	-	-	-	947	NA	408	<50	1,510	1,610	739
bis(2-Ethylhexyl)phthalate	410,000	31,000,000	31,000,000	-	-	NA	NA	<330	NA	NA	NA	NA
Carbazole	290,000	-	2,800	-	-	NA	NA	<330	NA	NA	NA	NA
Dibenzofuran	-	-	-	-	-	NA	NA	<330	NA	NA	NA	NA
2-Methylnaphthalene	-	-	-	-	-	NA	NA	<330	NA	NA	NA	NA
PCBs (ug/kg)												
Aroclor 1254	1,000	-	-	50,000	-	NA	<160	NA	NA	NA	NA	NA
Aroclor 1260	1,000	-	-	50,000	-	NA	<160	NA	NA	NA	NA	NA
TPH (mg/kg)												
Gasoline	-	-	-	-	-	<10	<10	NA	NA	NA	NA	NA
Diesel	-	-	-	-	-	165	13	NA	NA	NA	NA	NA
Oil	-	-	-	-	-	93	<10	NA	NA	NA	NA	NA
Total TPH	***9,000 above 1 meter / 2,000 below 1 meter			-	-	258	13	NA	NA	NA	NA	NA

NOTES:  
Only detected compounds are included in this table.  
\* Tier 1 SRO for Commercial/Industrial Properties  
\*\* Cleanup objective from 40 CFR Part 261.24  
\*\*\* IACQ Section 742.215

above Tier 1 Ingestion Exposure Route SROs  
above Tier 1 Inhalation Exposure Route SROs  
above Groundwater Ingestion Exposure Route SROs  
above Soil Attenuation Capacity

BOLD

**NOTES:**  
Only detected compounds are included in this table.  
\* Tier 1 SRC for Commercial/Industrial Properties  
\*\* Cleanup objective from 40 CFR Part 261.24  
\*\*\* TACO Section 742.215  
NA = Not analyzed

**TABLE 2B**  
**Soil Analytical Data - Total and TCLP Metals**

SIPL Metals / Chicago, Illinois

COMPOUNDS	Tier 1 Ingestion Exposure Route *	Tier 1 Inhalation Exposure Route *	Tier 1 Groundwater Ingestion Class II *	Toxicity Characteristic Hazardous Waste **	SAMPLE LOCATIONS AND DEPTH													
					B-1A	B-3A	B-4		B-5A	B-6A	B-7A	B-8		B-13		B-14/MW-2		
					2-4 ft	1-2 ft	A 1.5 ft	B 3 ft	4-6 ft	2 ft	1-2 ft	A 2-4 ft	B 6-8 ft	A 1.5 ft	B 3 ft	A 5 ft	B 8 ft	
Total Metals (mg/kg)																		
Cyanide	4,100	-	-	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aluminum	-	-	-	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	82	-	-	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	81	1,200	-	-	2.8	27.5	21.3	82.1	79.6	42.6	16.5	6.4	7.8	7.6	1.1	2.9	9.1	NA
Barium	14,000	870,000	-	-	62.4	338	556	60.9	432	350	1,490	40.5	34.1	88.5	2.8	46.4	28	NA
Beryllium	410	2,100	-	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	200	2,800	-	-	0.8	<0.1	22.5	24.3	3.1	107	16.8	<0.1	<0.1	14.5	<0.1	<0.1	<0.1	NA
Calcium	-	-	-	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	4,100	420	-	-	20.6	27.7	94.6	126	22.6	91	82.1	22	16.3	15.4	1.3	24.9	19.2	NA
Cobalt	12,000	-	-	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	8,200	-	-	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	-	-	-	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	400	-	-	-	83.8	153	10,200	8,940	1,010	34,000	8,750	20.6	14.2	1,200	3.4	18	18.1	NA
Magnesium	-	-	-	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	9,600	8,700	-	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	61	52,000	-	-	0.14	0.05	2.07	17.3	0.36	1.1	0.21	<0.05	<0.05	0.36	<0.05	<0.05	<0.05	NA
Nickel	4,100	21,000	-	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	-	-	-	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	1,000	-	-	-	<0.2	2.8	<0.2	12.9	6.3	0.9	1.5	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	NA
Silver	1,000	-	-	-	10.8	0.5	8.8	8.6	0.4	51.4	2	<0.1	<0.1	20.3	<0.1	<0.1	<0.1	NA
Sodium	-	-	-	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	1,400	-	-	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	61,000	-	-	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCLP Metals (mg/L)																		
Arsenic	-	-	0.024	5.0	<0.002	<0.002	<0.002	0.024	<0.002	0.003	<0.002	0.005	<0.002	0.005	<0.002	<0.002	<0.002	NA
Barium	-	-	2.0	100	<1.0	<1.0	<1.0	1.1	<1.0	<1.0	2.4	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA
Cadmium	-	-	0.05	1.0	<0.001	0.008	0.314	0.508	0.042	0.529	0.348	<0.001	0.002	0.143	0.008	<0.001	<0.001	NA
Chromium	-	-	1.0	5.0	0.194	0.001	0.002	0.003	0.002	<0.001	0.003	0.002	0.002	0.002	0.002	<0.001	<0.001	NA
Lead	-	-	-	5.0	<0.002	0.188	21.8	95.1	0.767	2.53	21.8	0.046	0.009	0.68	0.03	0.014	<0.002	NA
Mercury	-	-	0.01	0.2	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	NA
Selenium	-	-	0.05	1.0	0.004	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	NA
Silver	-	-	0.05	5.0	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.001	0.001	<0.001	<0.001	<0.001	<0.001	NA
FOC	-	-	-	-	NA	NA	NA	13.33	NA	NA	NA	NA	2.54	NA	NA	NA	2.5	NA
pH	-	-	-	-	11.6	9.19	10.22	6.44	8.96	8.12	9.04	8.51	8.8	8.59	8.37	8.73	8.75	NA

**NOTES:** Only compounds detected are included in this table  
 \* = Tier 1 SRO for Commercial/Industrial Properties  
 \*\* = Cleanup objective from 40 CFR Part 261.24  
 NA = Not analyzed

**BOLD** = above Tier 1 Ingestion Exposure Route SROs  
**BOLD** = above Tier 1 Inhalation Exposure Route SROs  
**BOLD** = above Groundwater Ingestion Exposure Route SROs  
**BOLD** = above Toxicity Characteristic Hazardous Waste

**TABLE 2B**  
**Soil Analytical Data - Total and TCLP Metals**  
**SIPI Metals / Chicago, Illinois**

COMPOUNDS	Tier 1 Ingestion Exposure Route *	Tier 1 Inhalation Exposure Route *	Tier 1 Groundwater Ingestion Class II *	Toxicity Characteristic Hazardous Waste **	SAMPLE LOCATIONS AND DEPTH												B-27/ MW-1A 1.5 ft							
					B-16			B-17/MW-4		B-18		B-19		B-20		B-25								
					A 2 ft	B 4 ft	A 1.5 ft	B 4 ft	A 0-2 ft	B 6-8 ft	A 0-2 ft	B 4-6 ft	A 0-2 ft	B 2-4 ft	A 2-4 ft	B 6-8 ft								
Total Metals (mg/kg)																								
Cyanide	4,100	-	-	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aluminum	-	-	-	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Antimony	82	-	-	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	61	1,200	-	-	16	1	21.3	16.7	1.1	1	5.5	1.1	14.7	14.5	17.2	15.9	8.1	149	734	450	734	149	734	149
Barium	14,000	870,000	-	-	94.9	2.4	219	48.8	4.1	3.4	57.4	5.6	108	58.9	450	734	149	734	149	734	149	734	149	734
Beryllium	410	2,100	-	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	200	2,800	-	-	6.9	<0.1	<0.1	<0.1	<0.1	<0.1	1.7	<0.1	2.5	4	1.7	0.1	16	16	16	16	16	16	16	16
Calcium	-	-	-	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	4,100	420	-	-	10.8	1.4	26.6	19.3	1.8	1.4	8.4	1.4	18.8	7.2	29.1	36.8	95.2	95.2	95.2	95.2	95.2	95.2	95.2	95.2
Cobalt	12,000	-	-	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	8,200	-	-	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	-	-	-	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	400	-	-	-	299	1.3	1,060	24	1.7	1.2	112	1.8	513	156	852	818	2,060	2,060	2,060	2,060	2,060	2,060	2,060	
Magnesium	-	-	-	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	9,500	8,700	-	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	61	52,000	-	-	0.09	<0.05	0.24	<0.05	<0.05	<0.05	0.1	<0.05	0.13	0.05	1.2	0.89	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22
Nickel	4,100	21,000	-	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	-	-	-	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	1,000	-	-	-	<0.2	<0.2	1.3	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	0.4	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Silver	1,000	-	-	-	0.8	<0.1	1.7	<0.1	<0.1	<0.1	1.2	<0.1	3	0.7	0.4	0.4	18.1	18.1	18.1	18.1	18.1	18.1	18.1	18.1
Sodium	-	-	-	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	1,400	-	-	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	61,000	-	-	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TCLP Metals (mg/L)																								
Arsenic	-	-	0.024	5.0	0.003	<0.002	0.008	<0.002	<0.002	<0.002	<0.002	<0.002	0.003	<0.002	0.037	<0.002	0.003	0.003	<0.002	<0.002	<0.002	<0.002	<0.003	0.003
Barium	-	-	2.0	100	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
Cadmium	-	-	0.05	1.0	0.028	0.002	0.043	<0.001	0.002	0.003	0.038	0.005	<0.001	0.014	0.011	0.008	0.014	0.011	0.008	0.011	0.008	0.011	0.008	
Chromium	-	-	1.0	5.0	<0.001	0.002	0.004	0.002	0.002	0.002	0.002	<0.001	0.007	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	
Lead	-	-	0.1	5.0	0.03	0.012	0.019	0.034	0.006	0.007	0.015	0.007	<0.002	0.009	0.105	0.1	2.32	2.32	2.32	2.32	2.32	2.32	2.32	2.32
Mercury	-	-	0.01	0.2	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	
Selenium	-	-	0.05	1.0	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	
Silver	-	-	0.05	5.0	<0.001	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	
FOC	-	-	-	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	-	-	-	-	8.16	8.35	8.13	8.33	8.31	8.33	8.33	8.24	8.31	8.33	8.76	8.73	8.35	9.69	9.69	9.69	9.69	9.69	9.69	9.69

**NOTES:** Only compounds detected are included in this table  
 \* = Tier 1 SRO for Commercial/Industrial Properties  
 \*\* = Cleanup objective from 40 CFR Part 261.24  
 NA = Not analyzed

<b>BOLD</b>

= above Tier 1 Ingestion Exposure Route SROs  
 = above Tier 1 Inhalation Exposure Route SROs  
 = above Groundwater Ingestion Exposure Route  
 = above Toxicity Characteristic Hazardous Waste

**TABLE 2B**  
**Soil Analytical Data - Total and TCLP Metals**  
**SIPI Metals / Chicago, Illinois**

COMPOUNDS	Tier 1 Ingestion Exposure Route *	Tier 1 Inhalation Exposure Route *	Tier 1 Groundwater Ingestion Class II *	Toxicity Characteristic Hazardous Waste **	SAMPLE LOCATIONS AND DEPTH									
					B-28/ MW-5 2-4 ft		B-31		B-32		B-33		B-34	
					2 ft		3 ft	7 ft	3 ft	3 ft	3 ft	3 ft	5 ft	5 ft
<b>Total Metals (mg/kg)</b>														
Cyanide	4,100	-	-	-	NA	NA	0.91	<0.10	NA	NA	NA	NA	NA	NA
Aluminum	-	-	-	-	NA	NA	5820	12,800	NA	NA	NA	NA	NA	NA
Antimony	82	-	-	-	NA	NA	3.8	<1.0	NA	NA	NA	NA	NA	NA
Arsenic	61	1,200	-	-	24	NA	13.5	13.3	20.3	4.1	23.4	11.13	12.5	10.7
Barium	14,000	870,000	-	-	91.8	NA	78.5	36.8	NA	NA	NA	NA	NA	NA
Beryllium	410	2,100	-	-	NA	NA	1.1	0.9	NA	NA	NA	NA	NA	NA
Cadmium	200	2,800	-	-	<0.1	NA	5.1	0.6	NA	NA	NA	NA	NA	NA
Calcium	-	-	-	-	NA	NA	82,400	75,500	NA	NA	NA	NA	NA	NA
Chromium	4,100	420	-	-	18.3	NA	24.6	18.4	NA	NA	NA	NA	NA	NA
Cobalt	12,000	-	-	-	NA	NA	6.2	14.7	NA	NA	NA	NA	NA	NA
Copper	8,200	-	-	-	NA	NA	653	48.4	NA	NA	NA	NA	NA	NA
Iron	-	-	-	-	NA	NA	24,200	32,500	NA	NA	NA	NA	NA	NA
Lead	400	-	-	-	NA	NA	1,060	22.1	NA	NA	NA	NA	78.2	1,020
Magnesium	-	-	-	-	NA	NA	6,060	43,400	NA	NA	NA	NA	NA	NA
Manganese	9,600	8,700	-	-	NA	NA	440	431	NA	NA	NA	NA	NA	NA
Mercury	61	52,000	-	-	0.79	NA	0.6	<0.05	NA	NA	NA	NA	NA	NA
Nickel	4,100	21,000	-	-	NA	NA	54.7	43.6	NA	NA	NA	NA	NA	NA
Potassium	-	-	-	-	NA	NA	1,660	3,280	NA	NA	NA	NA	NA	NA
Selenium	1,000	-	-	-	<0.2	NA	1	<0.2	NA	NA	NA	NA	NA	NA
Silver	1,000	-	-	-	0.7	NA	2.5	<0.1	NA	NA	NA	NA	NA	NA
Sodium	-	-	-	-	NA	NA	2,630	564	NA	NA	NA	NA	NA	NA
Vanadium	1,400	-	-	-	NA	NA	14.8	28.7	NA	NA	NA	NA	NA	NA
Zinc	61,000	-	-	-	NA	NA	4,890	66	NA	NA	NA	NA	NA	NA
<b>TCLP Metals (mg/L)</b>														
Arsenic	-	-	0.024	5.0	<0.002	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	-	-	2.0	100	<1.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	-	-	0.05	1.0	<0.001	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	-	-	1.0	5.0	<0.001	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	-	-	0.1	5.0	<0.002	0.05	NA	NA	0.237	0.004	9.66	NA	NA	NA
Mercury	-	-	0.01	0.2	<0.0005	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	-	-	0.05	1.0	<0.002	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	-	-	0.05	5.0	<0.001	NA	NA	NA	NA	NA	NA	NA	NA	NA
FOC	-	-	-	-	NA	NA	7.8	NA	NA	NA	NA	NA	NA	NA
pH	-	-	-	-	8.95	NA	NA	NA	NA	NA	NA	NA	NA	8.63

**NOTES:** Only compounds detected are included in this table  
 \* = Tier 1 SRO for Commercial/Industrial Properties  
 \*\* = Cleanup objective from 40 CFR Part 261.24  
 NA = Not analyzed

**BOLD** = above Tier 1 Ingestion Exposure Route SROs  
**NA** = above Tier 1 Inhalation Exposure Route SROs  
**NA** = above Groundwater Ingestion Exposure Route SROs  
**NA** = above Toxicity Characteristic Hazardous Waste

TABLE 2B  
Soil Analytical Data - Total and TCLP Metals  
SIPI Metals / Chicago, Illinois

COMPOUNDS	Tier 1 Ingestion Exposure Route *	Tier 1 Inhalation Exposure Route *	Tier 1 Groundwater Ingestion Class II *	Toxicity Characteristic Hazardous Waste **	SAMPLE LOCATIONS AND DEPTH									
					B-40 2 ft	B-41 2 ft	B-42 9 ft	B-43 2 ft	B-44 1.5 ft	B-45 2 ft	B-46		B-49 3 ft	
											8 ft	10 ft		
Total Metals (mg/kg)														
Cyanide	4,100	-	-	-	NA	NA	<0.10	NA	NA	NA	NA	<0.10	<0.10	NA
Aluminum	-	-	-	-	NA	NA	12,000	NA	NA	NA	NA	17,400	11,200	NA
Antimony	82	-	-	-	NA	NA	<1.0	NA	NA	NA	NA	1.8	<1.0	NA
Arsenic	61	1,200	-	-	NA	NA	29.8	NA	NA	NA	NA	13.6	10.6	NA
Barium	14,000	870,000	-	-	NA	NA	40.9	NA	NA	NA	NA	45.5	44.9	NA
Beryllium	410	2,100	-	-	NA	NA	0.9	NA	NA	NA	NA	1.1	0.8	NA
Cadmium	200	2,800	-	-	NA	NA	0.4	NA	NA	NA	NA	0.3	0.9	NA
Calcium	-	-	-	-	NA	NA	42,400	NA	NA	NA	NA	46,100	37,500	NA
Chromium	4,100	420	-	-	NA	NA	18	NA	NA	NA	NA	24.9	17	NA
Cobalt	12,000	-	-	-	NA	NA	31.8	NA	NA	NA	NA	17.2	24.4	NA
Copper	8,200	-	-	-	NA	NA	50.1	NA	NA	NA	NA	55.8	38.6	NA
Iron	-	-	-	-	NA	NA	33,500	NA	NA	NA	NA	31,200	20,900	NA
Lead	400	-	-	-	2,020	6,900	24.7	NA	NA	956	18.4	19.6	5,180	NA
Magnesium	-	-	-	-	NA	NA	24,500	NA	NA	NA	28,300	18,800	NA	NA
Manganese	9,600	8,700	-	-	NA	NA	482	NA	NA	NA	559	607	NA	NA
Mercury	61	52,000	-	-	NA	NA	<0.05	NA	NA	NA	<0.05	<0.05	NA	NA
Nickel	4,100	21,000	-	-	NA	NA	49	NA	NA	NA	46.5	42.8	NA	NA
Potassium	-	-	-	-	NA	NA	2,660	NA	NA	NA	4,530	2,860	NA	NA
Selenium	1,000	-	-	-	NA	NA	<0.2	NA	NA	NA	<0.2	<0.2	NA	NA
Silver	1,000	-	-	-	NA	NA	<0.1	NA	NA	NA	0.2	0.1	NA	NA
Sodium	-	-	-	-	NA	NA	406	NA	NA	NA	428	382	NA	NA
Vanadium	1,400	-	-	-	NA	NA	21.4	NA	NA	NA	28.7	18.5	NA	NA
Zinc	61,000	-	-	-	NA	NA	69.8	NA	NA	NA	65.8	58	NA	NA
TCLP Metals (mg/L)														
Arsenic	-	-	0.024	5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	-	-	2.0	100	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	-	-	0.05	1.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	-	-	1.0	5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	-	-	0.1	5.0	NA	NA	NA	<0.002	3.19	0.012	<0.002	0.022	NA	NA
Mercury	-	-	0.01	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	-	-	0.05	1.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	-	-	0.05	5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
FOC	-	-	-	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	-	-	-	-	NA	NA	8.59	NA	NA	NA	NA	NA	NA	NA

NOTES: Only compounds detected are included in this table  
 \* = Tier 1 SRO for Commercial/Industrial Properties  
 \*\* = Cleanup objective from 40 CFR Part 261.24  
 NA = Not analyzed

<b>BOLD</b>

= above Tier 1 Ingestion Exposure Route SROs  
 = above Tier 1 Inhalation Exposure Route SROs  
 = above Groundwater Ingestion Exposure Route  
 = above Toxicity Characteristic Hazardous Waste

**TABLE 2B**  
**Soil Analytical Data - Total and TCLP Metals**

SPI Metals / Chicago, Illinois

COMPOUNDS	Tier 1 Ingestion Exposure Route *	Tier 1 Inhalation Exposure Route *	Tier 1 Groundwater Ingestion Class (I) *	Toxicity Characteristic Hazardous Waste **	SAMPLE LOCATIONS AND DEPTH									
					B-52 2 ft	B-53 4 ft	B-55 2 ft	B-56 2 ft	B-57 2 ft	B-58 2 ft	B-59 12 ft	B-60 5 ft	B-61 5 ft	
Total Metals (mg/kg)														
Cyanide	4,100	-	-	-	NA	<0.1	0.40	NA	NA	NA	NA	NA	NA	NA
Aluminum	-	-	-	-	NA	637	10,900	NA	NA	NA	NA	NA	NA	NA
Antimony	82	-	-	-	NA	<1.0	9.7	NA	NA	NA	NA	NA	NA	NA
Arsenic	61	1,200	-	-	NA	1.2	10.4	NA	NA	NA	NA	NA	NA	NA
Barium	14,000	870,000	-	-	NA	4.0	858	NA	NA	NA	NA	NA	NA	NA
Beryllium	410	2,100	-	-	NA	<0.1	1.3	NA	NA	NA	NA	NA	NA	NA
Cadmium	200	2,800	-	-	NA	0.2	18.7	NA	NA	NA	NA	NA	NA	NA
Calcium	-	-	-	-	NA	1,330	30,000	NA	NA	NA	NA	NA	NA	NA
Chromium	4,100	420	-	-	NA	1.4	25.2	NA	NA	NA	NA	NA	NA	NA
Cobalt	12,000	-	-	-	NA	0.8	12	NA	NA	NA	NA	NA	NA	NA
Copper	8,200	-	-	-	NA	6.0	483	NA	NA	NA	NA	NA	NA	NA
Iron	-	-	-	-	NA	1,680	27,500	NA	NA	NA	NA	NA	NA	NA
Lead	400	-	-	-	2,700	5.4	845	311	407	431	18.2	133	17.6	17.6
Magnesium	-	-	-	-	NA	862	15,660	NA	NA	NA	NA	NA	NA	NA
Manganese	9,600	8,700	-	-	NA	31.3	619	NA	NA	NA	NA	NA	NA	NA
Mercury	61	52,000	-	-	NA	<0.05	0.42	NA	NA	NA	NA	NA	NA	NA
Nickel	4,100	21,000	-	-	NA	1.9	40.2	NA	NA	NA	NA	NA	NA	NA
Potassium	-	-	-	-	NA	73.9	2,050	NA	NA	NA	NA	NA	NA	NA
Selenium	1,000	-	-	-	NA	<0.2	<0.2	NA	NA	NA	NA	NA	NA	NA
Silver	1,000	-	-	-	NA	<0.1	1.0	NA	NA	NA	NA	NA	NA	NA
Sodium	-	-	-	-	NA	66.7	681	NA	NA	NA	NA	NA	NA	NA
Vanadium	1,400	-	-	-	NA	2.0	22	NA	NA	NA	NA	NA	NA	NA
Zinc	61,000	-	-	-	NA	122	1,760	NA	NA	NA	NA	NA	NA	NA
TCLP Metals (mg/L)														
Arsenic	-	-	0.024	5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	-	-	2.0	100	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	-	-	0.05	1.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	-	-	1.0	5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	-	-	0.1	5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	-	-	0.01	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	-	-	0.05	1.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	-	-	0.05	5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
FOC	-	-	-	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
pH	-	-	-	-	NA	8.73	8.23	NA	NA	NA	NA	NA	NA	NA

**NOTES:** Only compounds detected are included in this table  
 \* = Tier 1 SRO for Commercial/Industrial Properties  
 \*\* = Cleanup objective from 40 CFR Part 261.24  
 NA = Not analyzed

**BOLD** = above Tier 1 Ingestion Exposure Route SRCs  
**NA** = above Tier 1 Inhalation Exposure Route SRCs  
**NA** = above Groundwater Ingestion Exposure Route SRCs  
**NA** = above Toxicity Characteristic Hazardous Waste

**TABLE 3**  
**Groundwater Grab Sample Analytical Data**

SiPi Metals / Chicago, Illinois

COMPOUNDS	OBJECTIVES	SAMPLE LOCATIONS									
		GW-2	GW-3	GW-6	GW-8	GW-22	GW-29F	GW-29U	GW-30F	GW-30U	
VOCs (ug/L)											
Benzene	25	<5.0	<5.0	<5.0	6.7	<5.0	NA	NA	NA	NA	
PNAs (ug/L)											
Phenanthrene	-	<5	<5	9	NA	<5	<5	<5	NA	NA	
Fluoranthene	1400	3	<2	21	NA	<2	<2	<2	NA	NA	
Pyrene	1050	3	<2	17	NA	<2	<2	<2	NA	NA	
Benzo(a)anthracene	0.65	1.5	0.5	10.6	NA	<0.13	<0.13	0.55	NA	NA	
Chrysene	7.5	1.8	<1.5	13	NA	<1.5	<1.5	<1.5	NA	NA	
Benzo(b)fluoranthene	0.9	1.4	0.48	12	NA	<0.18	<0.18	0.7	NA	NA	
Benzo(k)fluoranthene	0.85	1.3	0.41	8.6	NA	<0.17	<0.17	0.59	NA	NA	
Benzo(a)pyrene	2	1.8	0.6	10	NA	<0.2	<0.2	0.8	NA	NA	
Indeno(1,2,3-cd)pyrene	2.15	1.2	0.4	8.1	NA	<0.3	<0.3	0.6	NA	NA	
Dibenz(a,h)anthracene	1.5	0.3	<0.3	3.2	NA	<0.3	<0.3	<0.3	NA	NA	
Benzo(g,h,i)perylene	-	1.2	<0.4	6.8	NA	<0.4	<0.4	0.6	NA	NA	
Total Metals (mg/L)											
Arsenic	0.2	NA	0.016	0.008	0.004	NA	NA	NA	NA	NA	
Barium	2	NA	0.105	0.199	0.047	NA	NA	NA	NA	NA	
Chromium	1	NA	0.002	<0.001	<0.001	NA	NA	NA	NA	NA	
Lead	0.1	NA	0.178	0.012	<0.002	NA	NA	NA	<0.002	32	

**NOTES:**

Only compounds detected are included in this table

\* TACO Tier 1 GROs for the Groundwater Component of the Groundwater Ingestion Route, Class II

  = above TACO Tier 1 GRO, Class II

**TABLE 4**  
**Groundwater Analytical Data**  
**August 19, 2004**

SIPI Metals / Chicago, Illinois

COMPOUNDS	OBJECTIVES *	SAMPLE LOCATIONS					
		MW1-081904	MW2-081904	MW3-081904	MW4-081904	MW5-081904	MW6-081904
<b>VOCs (ug/L)</b>							
Benzene	25	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
<b>PNAs (ug/L)</b>							
Phenanthrene	-	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Fluoranthene	1400	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Pyrene	1050	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Benzo(a)anthracene	0.65	<0.13	<0.13	<0.13	<0.13	<0.13	<0.13
Chrysene	7.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5
Benzo(b)fluoranthene	0.9	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18
Benzo(k)fluoranthene	0.85	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17
Benzo(a)pyrene	2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Indeno(1,2,3-cd)pyrene	2.15	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Dibenz(a,h)anthracene	1.5	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Benzo(g,h,i)perylene	-	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
<b>Total Metals (mg/L)</b>							
Arsenic	0.2	<0.002	<0.002	0.006	<0.002	<0.002	<0.002
Barium	2	0.057	0.142	0.295	0.069	0.096	0.076
Chromium	1	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Lead	0.1	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002

**NOTES:**

Only the compounds detected in the previous groundwater grab samples are included in this table  
\* TACO Tier 1 GROs for the Groundwater Component of the Groundwater Ingestion Route, Class II



## **APPENDIX A**

### **SITE REMEDIATION PROGRAM FORMS (DRM-2)**

Illinois Environmental Protection Agency  
Bureau of Land  
Remedial Project Management Section  
1021 North Grand Avenue East  
P.O. Box 19276  
Springfield, Illinois 62794-9276

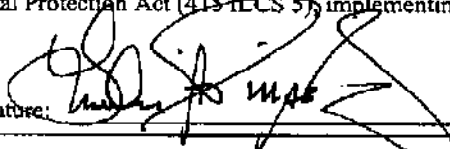
FOR ILLINOIS EPA USE:  
LOG No. \_\_\_\_\_

**Site Remediation Program Form (DRM-2)**  
**(To Be Submitted with all Plans and Reports)**

**I. Site Identification:**

Site Name: <u>SiPi Metals Corporation</u>	
Street Address: <u>1720 North Elston Avenue</u>	
City: <u>Chicago</u>	Illinois Inventory I. D. Number: <u>0316005887</u>
IEMA Incident Number: _____	

**II. Remediation Applicant:**

Applicant's Name: <u>Mr. Leslie Pinsof</u>		Company: <u>SiPi Metals Corporation</u>	
Street Address: <u>1720 North Elston Avenue</u>			
City: <u>Chicago</u>	State: <u>IL</u>	ZIP Code: <u>60622</u>	Phone: <u>(773) 276-0070</u>
I hereby request that the Illinois EPA review and evaluate the attached project documents in accordance with the terms and conditions of the Environmental Protection Act (415 ILCS 5), implementing regulations, and the review and evaluation services agreement.			
Remediation Applicant's Signature: 			Date: <u>11/10/04</u>

**III. Contact Person:**

Contact's Name: <u>Russell Chadwick</u>		Company: <u>Clayton Group Services, Inc.</u>	
Street Address: <u>3140 Finley Road</u>			
City: <u>Downers Grove</u>	State: <u>IL</u>	ZIP Code: <u>60515</u>	Phone: <u>(630) 795-3200</u>

**IV. Review & Evaluation Licensed Professional Engineer or Geologist ("RELPEG"), if applicable:**

RELPEG's Name: _____		Company: _____	
Street Address: _____			
City: _____	State: _____	ZIP Code: _____	Phone: _____
Registration Number: _____		License Expiration Date: _____	

All information submitted is available to the public except when specifically designated by the Remediation Applicant to be treated confidentially as a trade secret or secret process in accordance with the Illinois Compiled Statutes, Section 7(a) of the Environmental Protection Act, applicable Rules and Regulations of the Illinois Pollution Control Board and applicable Illinois EPA rules and guidelines. The Illinois EPA is authorized to require this information under Sections 415 ILCS 5/58 - 58.12 of the Environmental Protection Act and regulations promulgated thereunder. Disclosure of this information is required as a condition of participation in the Site Remediation Program. Failure to do so may prevent this form from being processed and could result in your plan(s) or report(s) being rejected. This form has been approved by the Forms Management Center.

# **V. Project Documents Being Submitted:**

Document Title: <u>Comprehensive Site Investigation/Tier 1 Remediation Objectives Report</u>		Date of Preparation of Plan or Report: _____
Prepared by: <u>Clayton Group Services, Inc.</u>		Prepared for: <u>SiPI Metals Corporation</u>
<b>Type of Document Submitted:</b>		
Site Investigation Report - Comprehensive	Sampling Plan	
Site Investigation Report - Focused	Health and Safety Plan	
Remediation Objectives Report-Tier 1 or 2	Community Relations Plan	
Remediation Objectives Report-Tier 3	Risk Assessment	
Remedial Action Plan	Contaminant Fate & Transport Modeling	
Remedial Action Completion Report	Environmental Remediation Tax Credit - Budget Plan Review	
	Other: _____	

Document Title: _____		Date of Preparation of Plan or Report: _____
Prepared by: _____		Prepared for: _____
<b>Type of Document Submitted:</b>		
Site Investigation Report - Comprehensive	Sampling Plan	
Site Investigation Report - Focused	Health and Safety Plan	
Remediation Objectives Report-Tier 1 or 2	Community Relations Plan	
Remediation Objectives Report-Tier 3	Risk Assessment	
Remedial Action Plan	Contaminant Fate & Transport Modeling	
Remedial Action Completion Report	Environmental Remediation Tax Credit - Budget Plan Review	
	Other: _____	

# **VI. Professional Engineer's or Geologist's Seal or Stamp:**

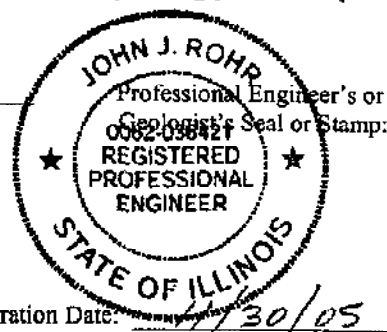
I attest that all site investigations or remedial activities that are the subject of this plan(s) or report(s) were performed under my direction, and this document and all attachments were prepared under my direction or reviewed by me, and to the best of my knowledge and belief, the work described in the plan and report has been designed or completed in accordance with the Illinois Environmental Protection Act (415 ILCS 5), 35 Ill. Adm. Code 740, and generally accepted engineering practices or principles of professional geology, and the information presented is accurate and complete.

Engineer or Geologist Name: Mr. John Rohr

Company: Clayton Group Services, Inc. Phone: (630) 795-3200

Registration Number: 062-036421

Signature: *John Rohr*



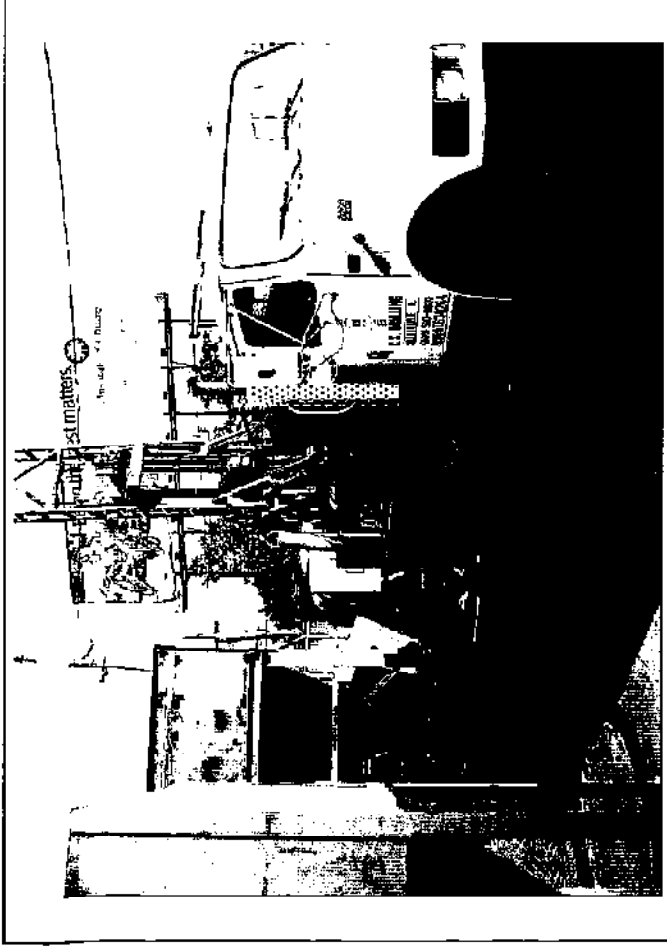
**Note:** The authority of a Licensed Professional Geologist to certify documents submitted to the Illinois Environmental Protection Agency for review and evaluation pursuant to Title XVII of the Environmental Protection Act is limited to Site Investigation Reports (415 ILCS 58.7(f), as amended by P.A. 92-0735, effective July 25, 2002). A Licensed Professional Geologist cannot certify Remediation Objectives Reports, Remedial Action Plans or Remedial Action Completion Reports.



## **APPENDIX B**

### **PHOTO LOG**

**PHOTO LOG**  
SiPi Metals  
1720 N. Elston  
Chicago, IL  
Project 15-04183.00-004



**PHOTOGRAPH # 1**

Location/Direction: Facing north  
Drilling at soil boring B-12

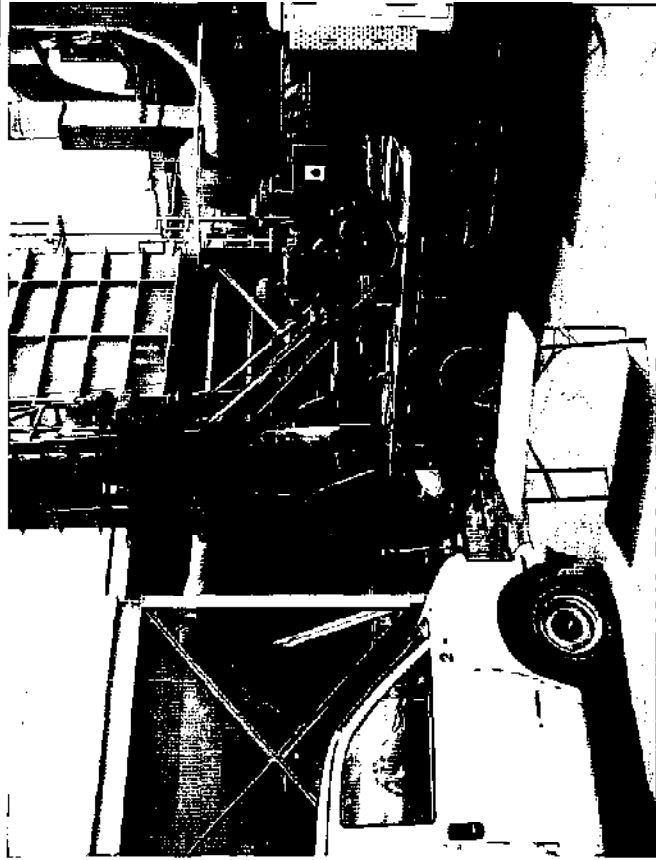
by DWL: 08/09/04



**PHOTOGRAPH # 2**

Location/Direction: Facing northeast  
Soil drums and completed MW-3.

by DWL: 08/09/04



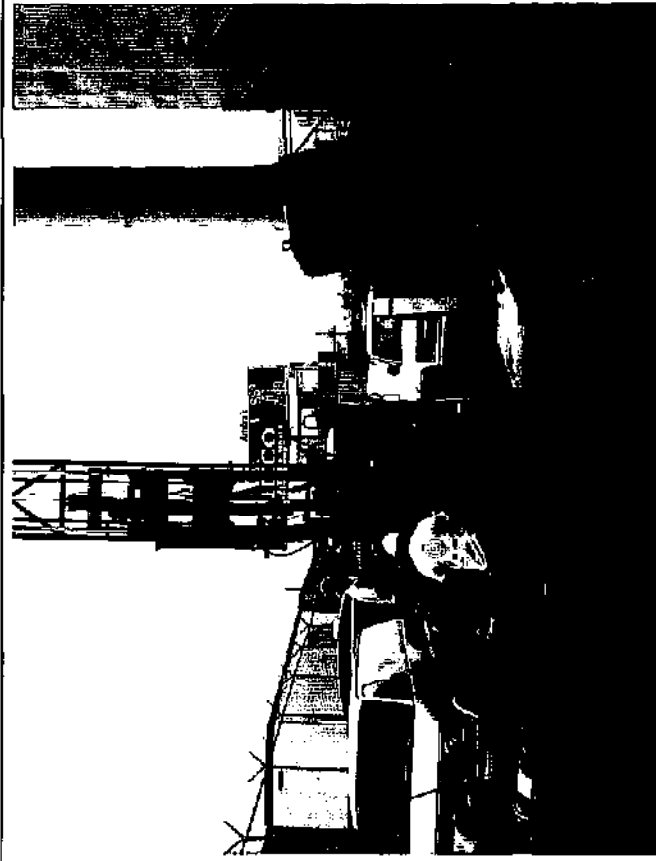
**PHOTOGRAPH # 3**

Location/Direction: Facing southeast

Location of MW-2 on the west side of the building.

by DWL: 08/09/04

**PHOTO LOG**  
SiPi Metals  
1720 N. Elston  
Chicago, IL  
Project 15-04183.00-004



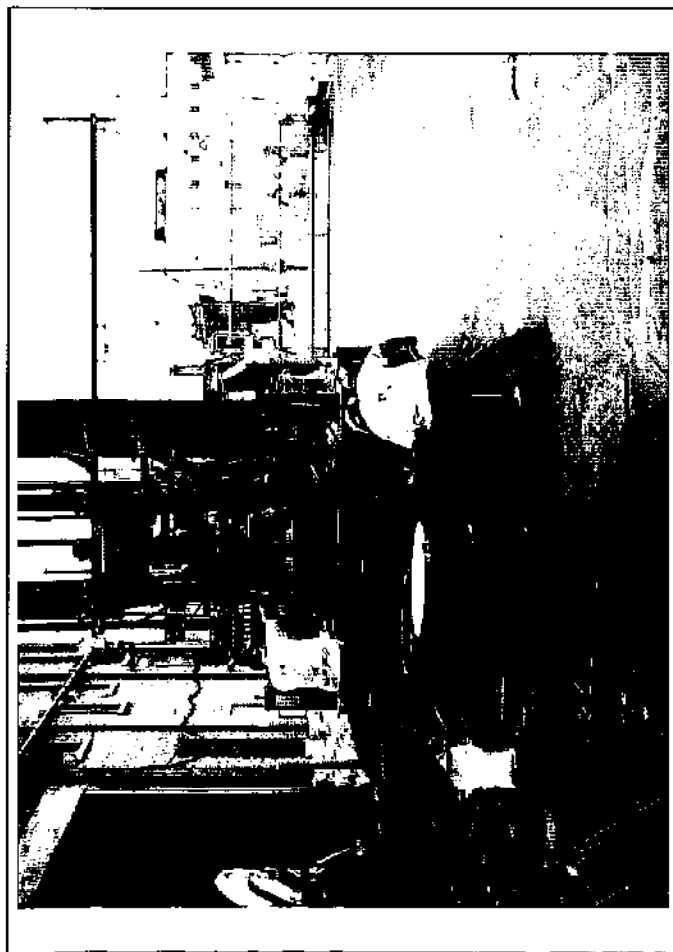
**PHOTOGRAPH # 4**

Location/Direction: Facing north

Drill rig set up at soil boring B-13.

by DWL: 08/10/04

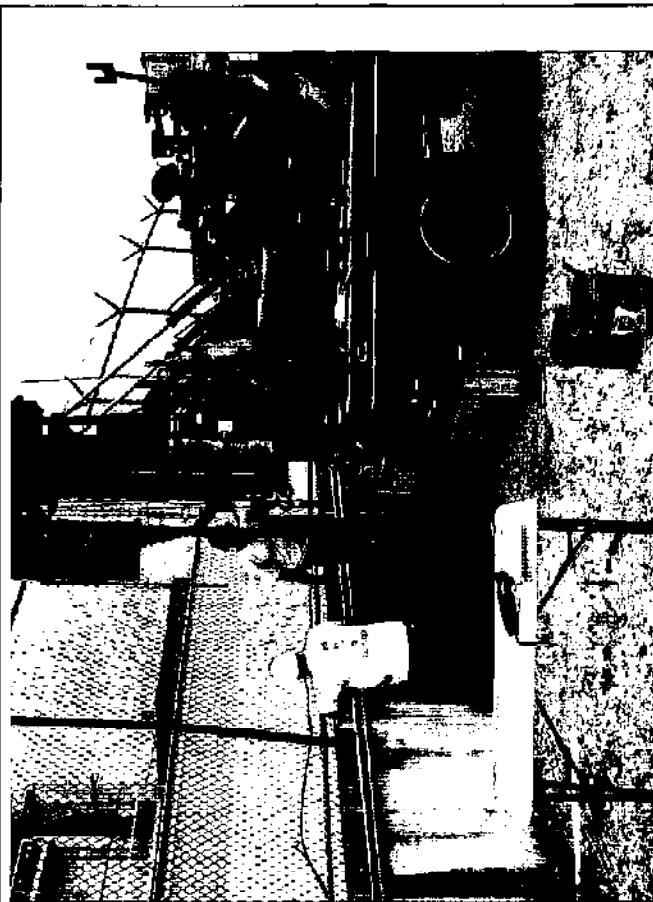
**PHOTO LOG**  
SiPi Metals  
1720 N. Elston  
Chicago, IL  
Project 15-04183.00-004



**PHOTOGRAPH # 5**

Location/Direction: Facing south  
Drilling at MW 4.

*by DWL: 08/10/04*



**PHOTOGRAPH # 6**

Location/Direction: Facing southeast  
Drilling at soil boring B-20; at the west side of the concrete retention basin.

*by DWL: 08/10/04*

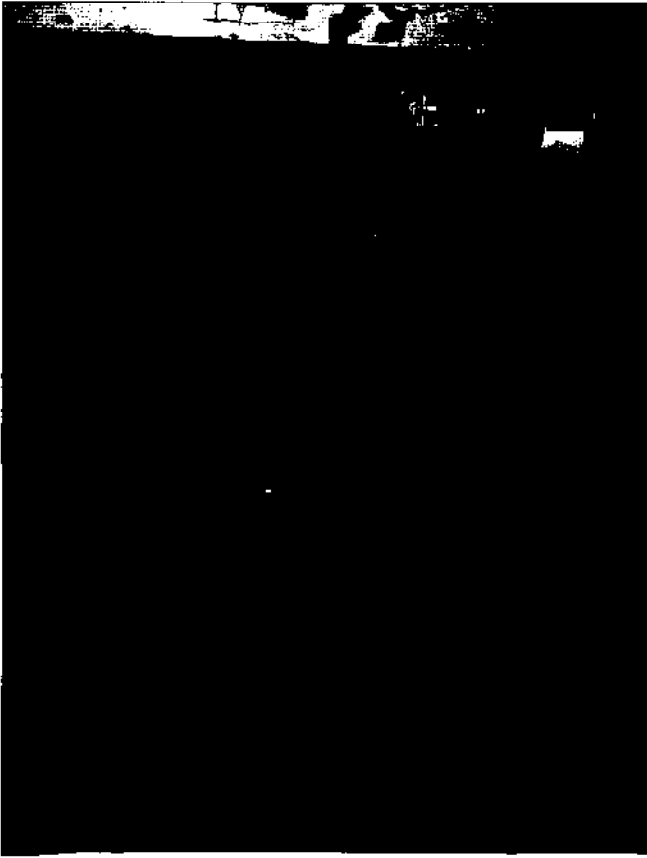
**PHOTO LOG**

SIPi Metals

1720 N. Elston

Chicago, IL

Project 15-04183.00-004

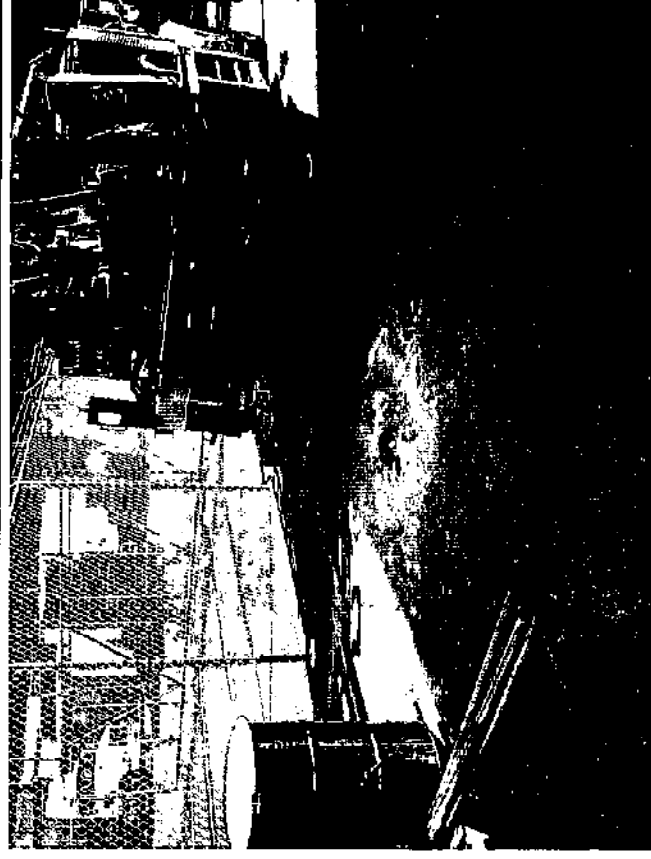


**PHOTOGRAPH # 7**

*by DWL: 08/11/04*

Location/Direction: Facing west

Geoprobe set up at soil boring B-23 in the basement of 1620 Besly Ct.



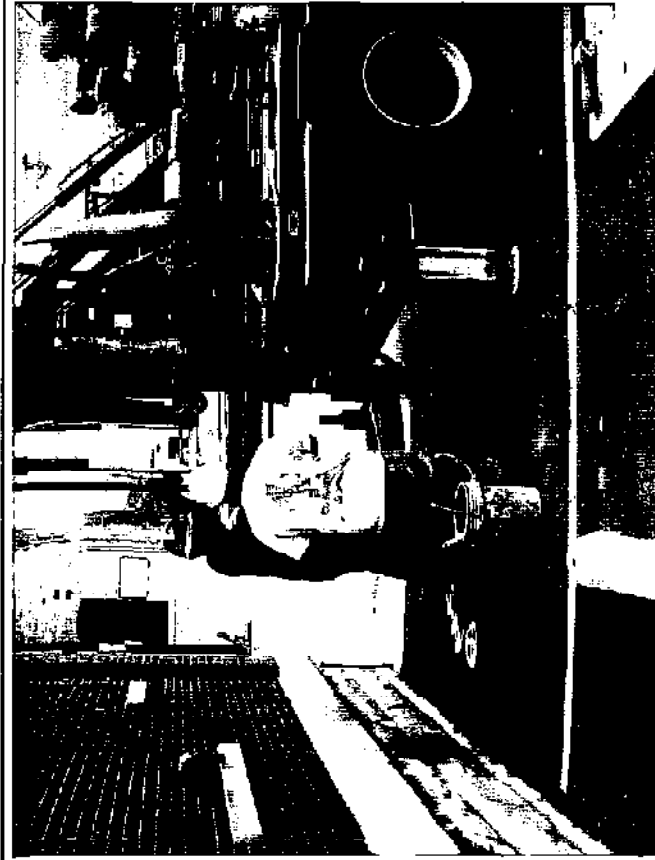
**PHOTOGRAPH # 8**

*by DWL: 08/11/04*

Location/Direction: Facing east

Completed MW-6 before putting on the flushmount cover.

**PHOTO LOG**  
SiPi Metals  
1720 N. Elston  
Chicago, IL  
Project 15-04183.00-004



**PHOTOGRAPH # 9**

Location/Direction: Facing east

Drilling at MW-5 at the southeast corner of the building.

*by DWL: 08/11/04*

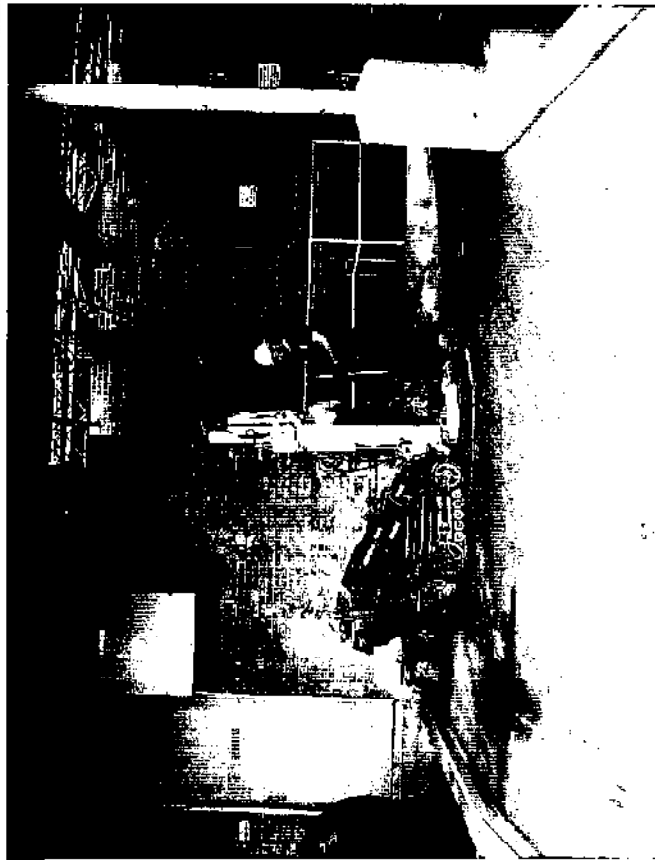


**PHOTOGRAPH # 10**

Location/Direction: Facing west

Soil boring B-1 inside the northeast corner of the building.

*by DWL: 08/12/04*



**PHOTOGRAPH # 11**

Location/Direction: Facing east  
Drilling at soil boring B-4, near the transformers.

*by DWL: 08/12/04*

**PHOTO LOG**  
SiPi Metals  
1720 N. Elston  
Chicago, IL  
Project 15-04183.00-004



**PHOTOGRAPH # 12**

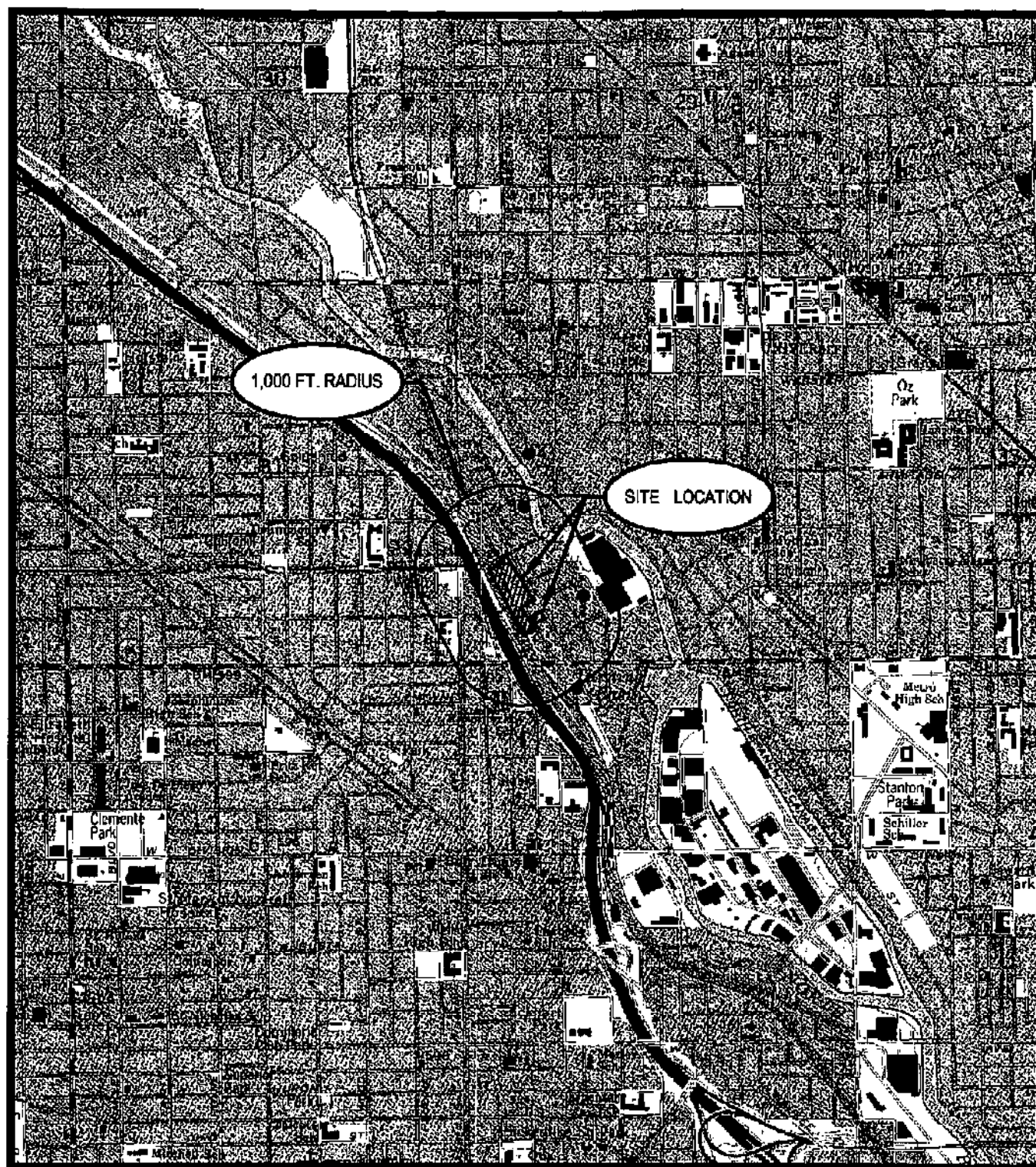
Location/Direction: Facing east  
Drilling at B-3, inside the building.

*by DWL: 08/13/04*

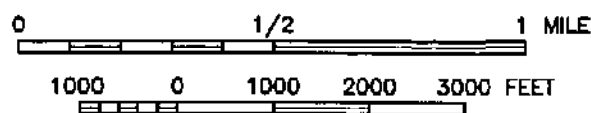


## **APPENDIX C**

### **WELL SEARCH MAP AND WELL LOGS**



Scale 1:24000



**FIGURE 7**

**1,000 FT. RADIUS WELL SEARCH**

**SIPI METALS**

**1720 N. ELSTON AVENUE**

**CHICAGO, ILLINOIS**

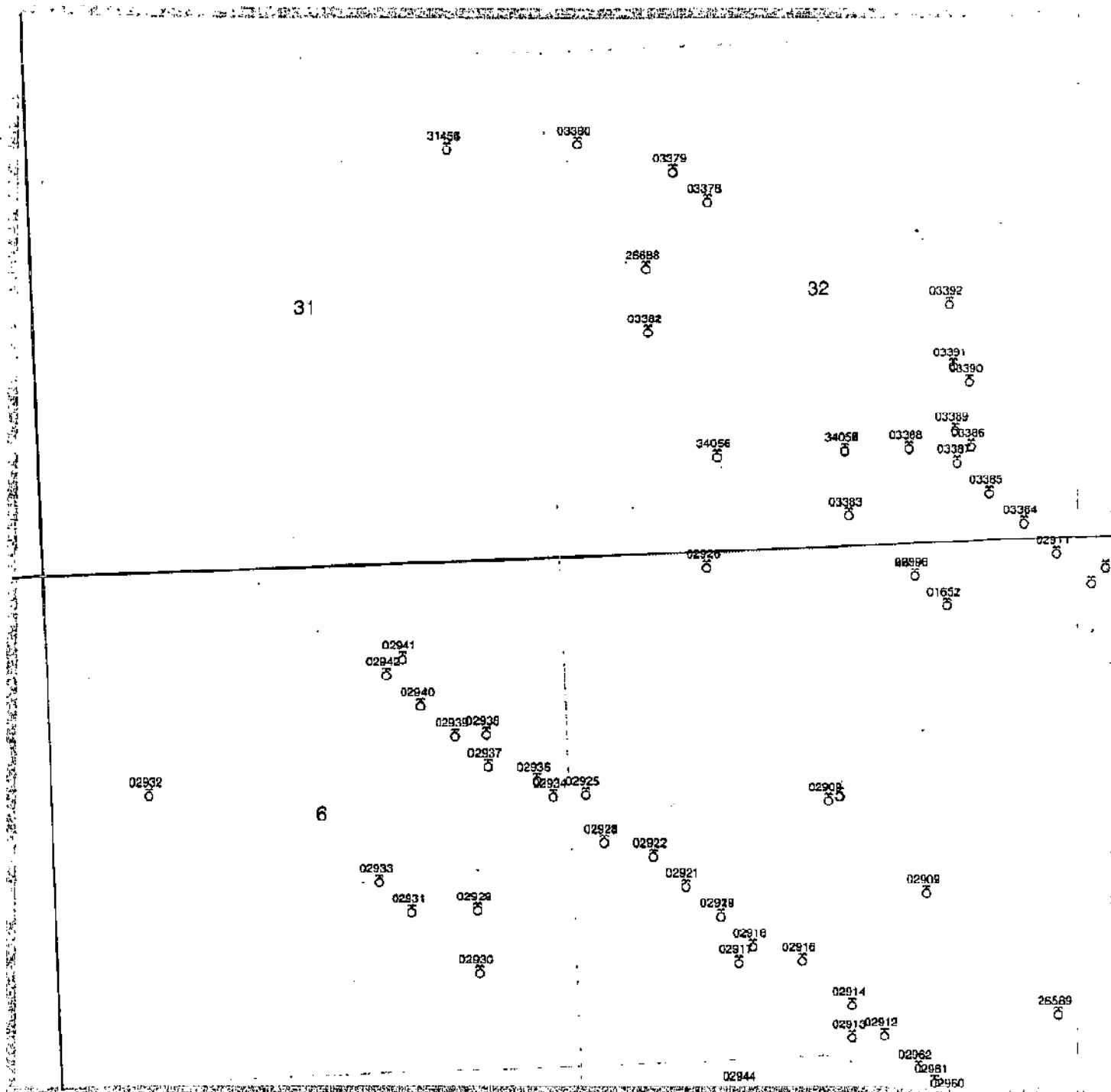
(SOURCE OF MAP IS USGS 7.5 MINUTE QUADRANGLE MAP, CHICAGO LOOP, ILLINOIS)



QUADRANGLE LOCATION



# Map Area: 39N-13E-1 m3 to 40N-14E-28 m3



Explanation		
● Oil	☼ Gas Injection	○ Junked
☼ Oil & Gas	☼ Gas Storage	○ Temporarily Abandoned
☼ Gas	☼ Salt Water Disposal	☼ Observation
☼ D&A - Oil Show	☼ Water Injection	☼ Other Injection
☼ D&A - Gas Show	☼ Water Supply	☼ Confidential
☼ D&A - Oil & Gas Show	☼ Permit	☼ Other Well Type
☼ D&A	☼ Water	+ Status Unknown
/ through any symbol indicates well is currently plugged		



0 1502 3004 ft

Illinois State Geological Survey

QuESToR: Custom Map

Date:30-SEP-04 Scale: 1:18024

Displayed data is based upon information supplied to the Illinois State Geological Survey (ISGS) and are not field verified. The ISGS does not guarantee the validity, accuracy or completeness of these data.

30-SEP-04

## QuESToR Data Extraction

DB: oradb

## Non Oil and Gas - Wells

120310290100 Chicago Dept. of Subways 4-39N-14E  
 Cook Subway Boring P-74  
 Status: ENG NW NW NW Elev: 593GL  
 permit: 0 permit date: comp. date: 04/01/39  
 Lambert X: 3502260 Lambert Y: 3236174 td: 55  
 producing formation: td formation:  
 latitude: 41.909962 longitude: 87.646894

120310290200 Chicago Dept. of Subways 4-39N-14E  
 Cook Subway Boring P-75  
 Status: ENG 165 SL 165 WL NW NW NW Elev: 593GL  
 permit: 0 permit date: comp. date: 04/01/39  
 Lambert X: 3502108 Lambert Y: 3236003 td: 55  
 producing formation: td formation:  
 latitude: 41.909499 longitude: 87.647468

120310290300 Chicago Dept. of Subways 4-39N-14E  
 Cook Subway Boring P-76  
 Status: ENG NW NW NW Elev: 593GL  
 permit: 0 permit date: comp. date: 04/01/39  
 Lambert X: 3502260 Lambert Y: 3236174 td: 55  
 producing formation: td formation:  
 latitude: 41.909962 longitude: 87.646894

120310290600 Chicago Pub. Works Dept. 5-39N-14E  
 Cook Chgo Pub Wks Dept  
 Status: ENG NE NW NE Elev: 593GL  
 permit: 0 permit date: comp. date: 01/01/27  
 Lambert X: 3500291 Lambert Y: 3236092 td: 78  
 producing formation: td formation:  
 latitude: 41.909846 longitude: 87.654163

120310290900 Chicago Pub. Works Dept. 5-39N-14E  
 Cook Chgo Pub Wks Dept  
 Status: ENG SE NW SE Elev: 587GL  
 permit: 0 permit date: comp. date: 01/01/27  
 Lambert X: 3500421 Lambert Y: 3232804 td: 62  
 producing formation: td formation:  
 latitude: 41.900779 longitude: 87.653930

120310290800 Chicago Pub. Works Dept. 5-39N-14E  
 Cook Chgo Pub Wks Dept  
 Status: ENG Elev: 584GL  
 permit: 0 permit date: comp. date: 01/01/27  
 Lambert X: 3499396 Lambert Y: 3233749 td: 63  
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 latitude: 41.903441 longitude: 87.657640

120310290700 Chicago Pub. Works Dept. 5-39N-14E  
 Cook Chgo Pub Wks Dept  
 Status: ENG SE NW SE Elev: 589GL  
 permit: 0 permit date: comp. date: 01/01/27  
 Lambert X: 3500421 Lambert Y: 3232804 td: 64  
 producing formation: td formation:  
 latitude: 41.900779 longitude: 87.653930

120312658900 Chicago Pub. Works Dept. 5-39N-14E  
 Cook Chgo-Halsted Vdct Ch-3

Status: ENG SE SE SE Elev: 594GL  
 permit: 0 permit date: comp. date: 04/01/66  
 Lambert X: 3501786 Lambert Y: 3231545 td: 80  
 producing formation: td formation:  
 latitude: 41.897234 longitude: 87.648991

120310165200 Geiger, S. B. Co. 5-39N-14E  
 Cook Fleischmann Yeast 1  
 Status: WATER N2 NE Elev: 590TM  
 permit: 0 permit date: comp. date: 01/01/27  
 Lambert X: 3500633 Lambert Y: 3235777 td: 1965  
 producing formation: td formation:  
 latitude: 41.908959 longitude: 87.652925

120310165100 Layne Bowler Co. 5-39N-14E  
 Cook Fleischmann Yeast 2  
 Status: WATER N2 NE Elev: 590TM  
 permit: 0 permit date: comp. date: 01/01/25  
 Lambert X: 3500633 Lambert Y: 3235777 td: 1962  
 producing formation: td formation:  
 latitude: 41.908959 longitude: 87.652925

120312659000 Chicago Pub. Works Dept. 5-39N-14E  
 Cook St Bulkhead Walls Re-4  
 Status: ENG NE NW NE Elev: 592GL  
 permit: 0 permit date: comp. date: 03/01/61  
 Lambert X: 3500291 Lambert Y: 3236092 td: 70  
 producing formation: td formation:  
 latitude: 41.909846 longitude: 87.654163

120310291100 Chicago Dept. of Subways 5-39N-14E  
 Cook Subway Boring P-77  
 Status: ENG 165 NL 165 EL NE NE NE Elev: 593GL  
 permit: 0 permit date: comp. date: 04/01/39  
 Lambert X: 3501766 Lambert Y: 3236317 td: 55  
 producing formation: td formation:  
 latitude: 41.910384 longitude: 87.648706

120310291200 Chicago Dept. of Subways 5-39N-14E  
 Cook Subway Boring Q40  
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 permit: 0 permit date: comp. date: 05/01/39  
 Lambert X: 3499986 Lambert Y: 3231303 td: 55  
 producing formation: td formation:  
 latitude: 41.896668 longitude: 87.655647

120310291300 Chicago Dept. of Subways 5-39N-14E  
 Cook Subway Boring Q41  
 Status: ENG 165 SL 165 WL SW SW SE Elev: 593GL  
 permit: 0 permit date: comp. date: 05/01/39  
 Lambert X: 3499660 Lambert Y: 3231289 td: 55  
 producing formation: td formation:  
 latitude: 41.896648 longitude: 87.656850

120310291400 Chicago Dept. of Subways 5-39N-14E  
 Cook Subway Boring Q42  
 Status: ENG 165 NL 165 WL SW SW SE Elev: 593GL  
 permit: 0 permit date: comp. date: 05/01/39  
 Lambert X: 3499646 Lambert Y: 3231618 td: 55  
 producing formation: td formation:  
 latitude: 41.897555 longitude: 87.656877

120310291500 Chicago Dept. of Subways 5-39N-14E  
Cook Subway Boring Q43  
Status: ENG NE SE SW Elev: 593GL  
permit: 0 permit date: comp. date: 05/01/39  
Lambert X: 3499133 Lambert Y: 3232090 td: 55  
producing formation: td formation:  
latitude: 41.898884 longitude: 87.658734

120310291600 Chicago Dept. of Subways 5-39N-14E  
Cook Subway Boring Q44  
Status: ENG NE SE SW Elev: 592GL  
permit: 0 permit date: comp. date: 05/01/39  
Lambert X: 3499133 Lambert Y: 3232090 td: 55  
producing formation: td formation:  
latitude: 41.898884 longitude: 87.658734

120310291700 Chicago Dept. of Subways 5-39N-14E  
Cook Subway Boring Q45  
Status: ENG NW SE SW Elev: 594GL  
permit: 0 permit date: comp. date: 05/01/39  
Lambert X: 3498477 Lambert Y: 3232062 td: 55  
producing formation: td formation:  
latitude: 41.898844 longitude: 87.661155

120310291800 Chicago Dept. of Subways 5-39N-14E  
Cook Subway Boring Q46  
Status: ENG 165 NL 165 EL NW SE SW Elev: 593GL  
permit: 0 permit date: comp. date: 05/01/39  
Lambert X: 3498634 Lambert Y: 3232233 td: 56  
producing formation: td formation:  
latitude: 41.899306 longitude: 87.660563

120310291900 Chicago Dept. of Subways 5-39N-14E  
Cook Subway Boring Q47  
Status: ENG 165 SL 165 WL SW NE SW Elev: 593GL  
permit: 0 permit date: comp. date: 05/01/39  
Lambert X: 3498293 Lambert Y: 3232549 td: 55  
producing formation: td formation:  
latitude: 41.900196 longitude: 87.661797

120310292000 Chicago Dept. of Subways 5-39N-14E  
Cook Subway Boring Q48  
Status: ENG 165 SL 165 WL SW NE SW Elev: 593GL  
permit: 0 permit date: comp. date: 05/01/39  
Lambert X: 3498293 Lambert Y: 3232549 td: 55  
producing formation: td formation:  
latitude: 41.900196 longitude: 87.661797

120310292100 Chicago Dept. of Subways 5-39N-14E  
Cook Subway Boring Q49  
Status: ENG 165 NL 165 EL SE NW SW Elev: 593GL  
permit: 0 permit date: comp. date: 05/01/39  
Lambert X: 3497950 Lambert Y: 3232864 td: 55  
producing formation: td formation:  
latitude: 41.901083 longitude: 87.663039

120310292200 Chicago Dept. of Subways 5-39N-14E  
Cook Subway Boring Q50  
Status: ENG 165 SL 165 WL NE NW SW Elev: 593GL  
permit: 0 permit date: comp. date: 05/01/39  
Lambert X: 3497608 Lambert Y: 3233179 td: 55  
producing formation: td formation:  
latitude: 41.901970 longitude: 87.664277

120310292300 Chicago Dept. of Subways 5-39N-14E  
Cook Subway Boring Q51  
Status: ENG NW NW SW Elev: 593GL  
permit: 0 permit date: comp. date: 05/01/39  
Lambert X: 3497108 Lambert Y: 3233323 td: 55  
producing formation: td formation:  
latitude: 41.902394 longitude: 87.666110

120310292400 Chicago Dept. of Subways 5-39N-14E  
Cook Subway Boring Q52  
Status: ENG NW NW SW Elev: 593GL  
permit: 0 permit date: comp. date: 05/01/39  
Lambert X: 3497108 Lambert Y: 3233323 td: 55  
producing formation: td formation:  
latitude: 41.902394 longitude: 87.666110

120310292500 Chicago Dept. of Subways 5-39N-14E  
Cook Subway Boring Q53  
Status: ENG 165 SL 165 WL SW SW NW Elev: 593GL  
permit: 0 permit date: comp. date: 05/01/39  
Lambert X: 3496923 Lambert Y: 3233810 td: 55  
producing formation: td formation:  
latitude: 41.903746 longitude: 87.666756

120310292600 Chicago Dept. of Subways 5-39N-14E  
Cook Subway Boring R-5A  
Status: ENG 165 NL 165 WL NW NE NW Elev: 592GL  
permit: 0 permit date: comp. date: 04/01/39  
Lambert X: 3498144 Lambert Y: 3236168 td: 35  
producing formation: td formation:  
latitude: 41.910176 longitude: 87.662077

120310293000 Chicago Pub. Works Dept. 6-39N-14E  
Cook Land & Lake Tunnels 3  
Status: ENG NW SE SE Elev: 597GL  
permit: 0 permit date: comp. date: 01/01/11  
Lambert X: 3495840 Lambert Y: 3231953 td: 66  
producing formation: td formation:  
latitude: 41.898695 longitude: 87.670866

120310292800 Chicago Pub. Works Dept. 6-39N-14E  
Cook Northwest Land & Lake Tunnels 1  
Status: ENG SW NE SE Elev: 595GL  
permit: 0 permit date: comp. date: 01/01/11  
Lambert X: 3495812 Lambert Y: 3232612 td: 68  
producing formation: td formation:  
latitude: 41.900512 longitude: 87.670920

120310292900 Chicago Pub. Works Dept. 6-39N-14E  
Cook Northwest Land & Lake Tunnels 2  
Status: ENG SW NE SE Elev: 595GL  
permit: 0 permit date: comp. date: 01/01/11  
Lambert X: 3495812 Lambert Y: 3232612 td: 67  
producing formation: td formation:  
latitude: 41.900512 longitude: 87.670920

120310293100 Chicago Pub. Works Dept. 6-39N-14E  
Cook Northwest Land & Lake Tunnels 4  
Status: ENG SE NW SE Elev: 597GL  
permit: 0 permit date: comp. date: 01/01/11  
Lambert X: 3495149 Lambert Y: 3232586 td: 66

producing formation:                      td formation:  
latitude: 41.900477                      longitude: 87.673356

120310293300                      Chicago Pub. Works Dept.                      6-39N-14E  
Cook                      Northwest Land & Lake Tunnels                      9  
Status: ENG                      NW SE                      Elev: 598GL  
permit: 0                      permit date:                      comp. date: 01/01/11  
Lambert X: 3494804                      Lambert Y: 3232902                      td: 67  
producing formation:                      td formation:  
latitude: 41.901370                      longitude: 87.674598

120310293200                      Chicago Pub. Works Dept.                      6-39N-14E  
Cook                      Potomac Ave. Shaft-NW Land & Lk Tun  
Status: ENG                      SE SW NW                      Elev: 597GL  
permit: 0                      permit date:                      comp. date:  
Lambert X: 3492444                      Lambert Y: 3233800                      td: 91  
producing formation:                      td formation:  
latitude: 41.903977                      longitude: 87.683198

120310293400                      Chicago Dept. of Subways                      6-39N-14E  
Cook                      Subway Boring                      Q54  
Status: ENG                      165 SL 165 EL                      SE SE NE                      Elev: 594GL  
permit: 0                      permit date:                      comp. date: 05/01/39  
Lambert X: 3496594                      Lambert Y: 3233800                      td: 55  
producing formation:                      td formation:  
latitude: 41.903737                      longitude: 87.667970

120310293500                      Chicago Dept. of Subways                      6-39N-14E  
Cook                      Subway Boring                      Q55  
Status: ENG                      SE SE NE                      Elev: 593GL  
permit: 0                      permit date:                      comp. date: 05/01/39  
Lambert X: 3496422                      Lambert Y: 3233959                      td: 38  
producing formation:                      td formation:  
latitude: 41.904185                      longitude: 87.668593

120310293600                      Chicago Dept. of Subways                      6-39N-14E  
Cook                      Subway Boring                      Q56A  
Status: ENG                      SE SE NE                      Elev: 593GL  
permit: 0                      permit date:                      comp. date: 05/01/39  
Lambert X: 3496422                      Lambert Y: 3233959                      td: 55  
producing formation:                      td formation:  
latitude: 41.904185                      longitude: 87.668593

120310293700                      Chicago Dept. of Subways                      6-39N-14E  
Cook                      Subway Boring                      Q57  
Status: ENG                      165 NL 165 EL                      SW SE NE                      Elev: 594GL  
permit: 0                      permit date:                      comp. date: 05/01/39  
Lambert X: 3495917                      Lambert Y: 3234099                      td: 55  
producing formation:                      td formation:  
latitude: 41.904615                      longitude: 87.670433

120310293800                      Chicago Dept. of Subways                      6-39N-14E  
Cook                      Subway Boring                      Q58  
Status: ENG                      165 SL 165 EL                      NW SE NE                      Elev: 595GL  
permit: 0                      permit date:                      comp. date: 11/01/40  
Lambert X: 3495906                      Lambert Y: 3234434                      td: 20  
producing formation:                      td formation:  
latitude: 41.905522                      longitude: 87.670460

120310293900                      Chicago Dept. of Subways                      6-39N-14E  
Cook                      Subway Boring                      Q59  
Status: ENG                      165 SL 165 WL                      NW SE NE                      Elev: 594GL

permit: 0                      permit date:                      comp. date: 12/01/40  
 Lambert X: 3495576              Lambert Y: 3234421              td: 20  
 producing formation:              td formation:  
 latitude: 41.905505              longitude: 87.671679

120310294000              Chicago Dept. of Subways              6-39N-14E  
 Cook              Subway Boring              Q60  
 Status: ENG              165 NL 165 EL              NE SW NE              Elev: 596GL  
 permit: 0              permit date:              comp. date: 12/01/40  
 Lambert X: 3495228              Lambert Y: 3234732              td: 19  
 producing formation:              td formation:  
 latitude: 41.906397              longitude: 87.672920

120310294100              Chicago Dept. of Subways              6-39N-14E  
 Cook              Subway Boring              Q61  
 Status: ENG              SE NW NE              Elev: 595GL  
 permit: 0              permit date:              comp. date: 12/01/40  
 Lambert X: 3495041              Lambert Y: 3235220              td: 17  
 producing formation:              td formation:  
 latitude: 41.907752              longitude: 87.673570

120310294200              Chicago Dept. of Subways              6-39N-14E  
 Cook              Subway Boring              Q62  
 Status: ENG              165 SL 165 WL              SE NW NE              Elev: 595GL  
 permit: 0              permit date:              comp. date: 12/01/40  
 Lambert X: 3494881              Lambert Y: 3235049              td: 16  
 producing formation:              td formation:  
 latitude: 41.907290              longitude: 87.674165

120310296100              Chicago Dept. of Subways              8-39N-14E  
 Cook              Subway Boring              Q38  
 Status: ENG              NE NW NE              Elev: 592GL  
 permit: 0              permit date:              comp. date: 05/01/39  
 Lambert X: 3500501              Lambert Y: 3230830              td: 55  
 producing formation:              td formation:  
 latitude: 41.895336              longitude: 87.653783

120310296200              Chicago Dept. of Subways              8-39N-14E  
 Cook              Subway Boring              Q39  
 Status: ENG              165 NL 165 WL              NE NW NE              Elev: 593GL  
 permit: 0              permit date:              comp. date: 05/01/39  
 Lambert X: 3500330              Lambert Y: 3230988              td: 55  
 producing formation:              td formation:  
 latitude: 41.895781              longitude: 87.654402

120313145400              Testing Service Corp.              31-40N-14E  
 Cook              Mayfair Const. Co.              MW-2  
 Status: MONIT              SW NE NE              Elev: 0  
 permit: none              permit date:              comp. date: 12/07/92  
 Lambert X: 3495486              Lambert Y: 3240520              td: 20  
 producing formation:              td formation:  
 latitude: 41.922315              longitude: 87.671558  
 Water from sand seams at depth 3 to 17 ft.  
 Screen: Diam. 2 in. Length: 15 ft. Slot: .01  
 Casing and Liner Pipe -

Diam. (in.)	Kind and Weight	From(ft)	To(ft)
2	SCH 40 PVC	0	20

Size hole below casing: 4.25 in.  
 Static level 5 ft. below casing top which is 0 ft. above grnd level.  
 Pumping level 0 ft. when pumping at 0 gpm for 0 hours.  
 Formations Passed Through              Thickness Bottom  
 crushed limestone, brick, & sand              3 3  
 gravel & sandy silt              2 5  
 gray & brown silty clay              15 20

120313145500      Testing Service Corp.      31-40N-14E  
Cook      Mayfair Const. Co.      MW-8  
Status: MONIT      SW NE NE      Elev: 0  
permit: none      permit date:      comp. date: 12/07/92  
Lambert X: 3495486      Lambert Y: 3240520      td: 20  
producing formation:      td formation:  
latitude: 41.922315      longitude: 87.671558  
Water from sand seams at depth 4 to 12 ft.  
Screen: Diam. 2 in. Length: 15 ft. Slot: .01  
Casing and Liner Pipe -  
Diam. (in.)      Kind and Weight      From(ft)      To(ft)  
2      SCH 40 PVC      0      20  
Size hole below casing: 4.25 in.  
Static level 4 ft. below casing top which is 0 ft. above grnd level.  
Pumping level 0 ft. when pumping at 0 gpm for 0 hours.  
Formations Passed Through      Thickness      Bottom  
crushed limestone, brick, & sand      3      3  
gravel, sandy silt      2      5  
gray & brown silty clay      15      20

120313145600      Testing Service Corp.      31-40N-14E  
Cook      Mayfair Const. Co.      MW-9  
Status: MONIT      SW NE NE      Elev: 0  
permit: none      permit date:      comp. date: 12/08/92  
Lambert X: 3495486      Lambert Y: 3240520      td: 18  
producing formation:      td formation:  
latitude: 41.922315      longitude: 87.671558  
Water from sand seams at depth 5 to 19 ft.  
Screen: Diam. 2 in. Length: 15 ft. Slot: .01  
Casing and Liner Pipe -  
Diam. (in.)      Kind and Weight      From(ft)      To(ft)  
2      SCH 40 PVC      0      18  
Size hole below casing: 4.25 in.  
Static level 5 ft. below casing top which is 0 ft. above grnd level.  
Pumping level 0 ft. when pumping at 0 gpm for 0 hours.  
Formations Passed Through      Thickness      Bottom  
crushed limestone, brick, & sand      3      3  
gravel & sandy silt      2      5  
gray & brown silty clay      15      20

120310337800      Geiger, S. B. Co.      32-40N-14E  
Cook      Birk Bros Brew  
Status: WATER      NW SE NW      Elev: 597GL  
permit: 0      permit date:      comp. date: 01/01/43  
Lambert X: 3498145      Lambert Y: 3239962      td: 1600  
producing formation:      td formation:  
latitude: 41.920629      longitude: 87.661790

120310337900      Miller, J. P. Art. Well      32-40N-14E  
Cook      Birk Bros Brew  
Status: WATER      NW      Elev: 0  
permit:      permit date:      comp. date:  
Lambert X: 3497804      Lambert Y: 3240278      td: 1610  
producing formation:      td formation:  
latitude: 41.921519      longitude: 87.663024

120310338300      Chicago Pub. Works Dept.      32-40N-14E  
Cook      Chgo Pub Wks Dept      0585  
Status: ENG      SW SW SE      Elev: 0  
permit: 0      permit date:      comp. date: 01/01/27  
Lambert X: 3499604      Lambert Y: 3236723      td: 72  
producing formation:      td formation:  
latitude: 41.911623      longitude: 87.656650

120310338000 Chicago Pub. Works Dept. 32-40N-14E  
Cook Chgo Pub Wks Dept  
Status: ENG SW NW NW Elev: 583GL  
permit: 0 permit date: comp. date: 01/01/27  
Lambert X: 3496807 Lambert Y: 3240568 td: 71  
producing formation: td formation:  
latitude: 41.922374 longitude: 87.666681

120310338100 Chicago Pub. Works Dept. 32-40N-14E  
Cook Chgo Pub Wks Dept  
Status: ENG NE NW SW Elev: 586GL  
permit: 0 permit date: comp. date: 01/01/27  
Lambert X: 3497545 Lambert Y: 3238618 td: 62  
producing formation: td formation:  
latitude: 41.916960 longitude: 87.664104

120310338200 Chicago Pub. Works Dept. 32-40N-14E  
Cook Chgo Pub Wks Dept  
Status: ENG NE NW SW Elev: 585GL  
permit: 0 permit date: comp. date: 01/01/27  
Lambert X: 3497545 Lambert Y: 3238618 td: 64  
producing formation: td formation:  
latitude: 41.916960 longitude: 87.664104

120313405700 Rock & Soil Drilling Corp. 32-40N-14E  
Cook GI North Property LLC MW-03  
Status: MONIT NW SW SE Elev: 0  
permit: permit date: comp. date: 02/18/02  
Lambert X: 3499575 Lambert Y: 3237381 td: 20  
producing formation: td formation:  
latitude: 41.913438 longitude: 87.656708  
Water from at depth 0 to 0 ft.  
Screen: Diam. 2 in. Length: 10 ft. Slot: .01  
Casing and Liner Pipe -  
Diam. (in.) Kind and Weight From(ft) To(ft)  
2 PVC 1 10  
2 PVC SCREEN 10 20  
Size hole below casing: in.  
Static level 0 ft. below casing top which is 0 ft. above grnd level.  
Pumping level 0 ft. when pumping at 0 gpm for 0 hours.  
Formations Passed Through Thickness Bottom  
gravelly sand, loose fill 7 7  
brown/gray silty clay, stiff 13 20

120313405800 Rock & Soil Drilling Corp. 32-40N-14E  
Cook GI North Property LLC MW-04  
Status: MONIT NW SW SE Elev: 0  
permit: permit date: comp. date: 02/14/02  
Lambert X: 3499575 Lambert Y: 3237381 td: 20  
producing formation: td formation:  
latitude: 41.913438 longitude: 87.656708  
Water from at depth 0 to 0 ft.  
Screen: Diam. 2 in. Length: 10 ft. Slot: .01  
Casing and Liner Pipe -  
Diam. (in.) Kind and Weight From(ft) To(ft)  
2 PVC -3 10  
2 PVC 10 20  
Size hole below casing: in.  
Static level 0 ft. below casing top which is 0 ft. above grnd level.  
Pumping level 0 ft. when pumping at 0 gpm for 0 hours.  
Formations Passed Through Thickness Bottom  
topsoil & gravel 4 4  
brown silty clay, stiff 9 13  
gray silty clay, stiff 7 20

120313405900 Rock & Soil Drilling Corp. 32-40N-14E  
Cook GI North Property LLC MW-05  
Status: MONIT NW SW SE Elev: 0  
permit: permit date: comp. date: 02/15/02  
Lambert X: 3499575 Lambert Y: 3237381 td: 20  
producing formation: td formation:  
latitude: 41.913438 longitude: 87.656708  
Water from at depth 0 to 0 ft.  
Screen: Diam. 2 in. Length: 10 ft. Slot: .01  
Casing and Liner Pipe -  
Diam. (in.) Kind and Weight From(ft) To(ft)  
2 PVC -3 10  
2 PVC SCREEN 10 20  
Size hole below casing: in.  
Static level 0 ft. below casing top which is 0 ft. above grnd level.  
Pumping level 0 ft. when pumping at 0 gpm for 0 hours.  
Formations Passed Through Thickness Bottom  
gravelly sand, loose fill 9 9  
brown silty clay, stiff 11 20

120313405500 Rock & Soil Drilling Corp. 32-40N-14E  
Cook GI North Property LLC MW01  
Status: MONIT NW SW SE Elev: 0  
permit: permit date: comp. date: 02/18/02  
Lambert X: 3499575 Lambert Y: 3237381 td: 18  
producing formation: td formation:  
latitude: 41.913438 longitude: 87.656708  
Water from at depth 0 to 0 ft.  
Screen: Diam. 2 in. Length: 10 ft. Slot: .01  
Casing and Liner Pipe -  
Diam. (in.) Kind and Weight From(ft) To(ft)  
2 PVC -3 8  
2 PVC SCREEN 8 18  
Size hole below casing: in.  
Static level 0 ft. below casing top which is 0 ft. above grnd level.  
Pumping level 0 ft. when pumping at 0 gpm for 0 hours.  
Formations Passed Through Thickness Bottom  
topsoil w/gravel 2 2  
brown silty clay, stiff 10 12  
brown/gray silty clay, stiff 6 18

120313405600 Rock & Soil Drilling Corp. 32-40N-14E  
Cook GI North Property LLC MW02  
Status: MONIT NW SE SW Elev: 0  
permit: permit date: comp. date: 02/14/02  
Lambert X: 3498259 Lambert Y: 3237327 td: 18  
producing formation: td formation:  
latitude: 41.913363 longitude: 87.661566  
Water from at depth 0 to 0 ft.  
Screen: Diam. 2 in. Length: 10 ft. Slot: .01  
Casing and Liner Pipe -  
Diam. (in.) Kind and Weight From(ft) To(ft)  
2 PVC -3 8  
2 PVC 8 18  
Size hole below casing: in.  
Static level 0 ft. below casing top which is 0 ft. above grnd level.  
Pumping level 0 ft. when pumping at 0 gpm for 0 hours.  
Formations Passed Through Thickness Bottom  
topsoil w/gravel 2 2  
brown silty clay, stiff 10 12  
gray silty clay, stiff 6 18

120312668800 Chicago Pub. Works Dept. 32-40N-14E  
Cook St Bulkhd Walls Re-2  
Status: ENG SE SW NW Elev: 590GL  
permit: 0 permit date: comp. date: 03/01/61

Lambert X: 3497518      Lambert Y: 3239277      td: 86  
 producing formation:      td formation:  
 latitude: 41.918777      longitude: 87.664154

120310338400      Chicago Dept. of Subways      32-40N-14E  
 Cook      Subway Boring      P-78  
 Status: ENG      165 SL 165 WL      SE SE SE      Elev: 593GL  
 permit: 0      permit date:      comp. date: 01/01/39  
 Lambert X: 3501423      Lambert Y: 3236633      td: 55  
 producing formation:      td formation:  
 latitude: 41.911274      longitude: 87.649947

120310338500      Chicago Dept. of Subways      32-40N-14E  
 Cook      Subway Boring      P-79  
 Status: ENG      165 NL 165 EL      SW SE SE      Elev: 593GL  
 permit: 0      permit date:      comp. date: 04/01/39  
 Lambert X: 3501078      Lambert Y: 3236948      td: 55  
 producing formation:      td formation:  
 latitude: 41.912161      longitude: 87.651196

120310338600      Chicago Dept. of Subways      32-40N-14E  
 Cook      Subway Boring      P-80  
 Status: ENG           NW SE SE      Elev: 593GL  
 permit: 0      permit date:      comp. date: 04/01/39  
 Lambert X: 3500890      Lambert Y: 3237436      td: 55  
 producing formation:      td formation:  
 latitude: 41.913516      longitude: 87.651853

120310338700      Chicago Dept. of Subways      32-40N-14E  
 Cook      Subway Boring      P-81  
 Status: ENG      165 SL 165 WL      NW SE SE      Elev: 593GL  
 permit: 0      permit date:      comp. date: 04/01/39  
 Lambert X: 3500734      Lambert Y: 3237264      td: 49  
 producing formation:      td formation:  
 latitude: 41.913051      longitude: 87.652441

120310338800      Chicago Dept. of Subways      32-40N-14E  
 Cook      Subway Boring      P-82  
 Status: ENG           NE SW SE      Elev: 593GL  
 permit: 0      permit date:      comp. date: 05/01/39  
 Lambert X: 3500232      Lambert Y: 3237408      td: 55  
 producing formation:      td formation:  
 latitude: 41.913476      longitude: 87.654282

120310338900      Chicago Dept. of Subways      32-40N-14E  
 Cook      Subway Boring      P-83  
 Status: ENG      165 NL 165 WL      NW SE SE      Elev: 595GL  
 permit: 0      permit date:      comp. date: 04/01/39  
 Lambert X: 3500718      Lambert Y: 3237593      td: 55  
 producing formation:      td formation:  
 latitude: 41.913958      longitude: 87.652476

120310339000      Chicago Dept. of Subways      32-40N-14E  
 Cook      Subway Boring      P-84  
 Status: ENG           SW NE SE      Elev: 594GL  
 permit: 0      permit date:      comp. date: 05/01/39  
 Lambert X: 3500860      Lambert Y: 3238094      td: 55  
 producing formation:      td formation:  
 latitude: 41.915331      longitude: 87.651914

120310339100      Chicago Dept. of Subways      32-40N-14E  
 Cook      Subway Boring      P-94

Status: ENG	165	NL 165	WL	SW NE SE	Elev: 594GL
permit: 0		permit date:			comp. date: 12/01/40
Lambert X: 3500688		Lambert Y: 3238252			td: 21
producing formation:		td formation:			
latitude: 41.915776		longitude: 87.652537			

120310339200	Chicago Dept. of Subways	32-40N-14E
Cook	Subway Boring	P-95
Status: ENG	165 NL 165 WL	NW NE SE
permit: 0	permit date:	Elev: 595GL
Lambert X: 3500658	Lambert Y: 3238910	comp. date: 12/01/40
producing formation:	td formation:	td: 21
latitude: 41.917590	longitude: 87.652598	



# TELEPHONE LOG SHEET

		DATE	9-29-04
PROJECT NO.	15-04183	TIME	1420
COMPANY / AGENCY <u>Cook County Department of Public Health</u>			
CONVERSATION WITH <u>John Kar</u>		PHONE NO. <u>(708) 492-2000</u>	
SUBJECT OF CONVERSATION: <u>Well Search FOIA</u>			

## NOTES:

John Kar indicated that any location within the City of Chicago limits are out of the CCDPH's jurisdiction. There are no records at the CCDPH regarding the subject property and the surrounding area.



## ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

1021 NORTH GRAND AVENUE EAST, P.O. BOX 19276, SPRINGFIELD, ILLINOIS 62794-9276, 217-782-3397  
JAMES R. THOMPSON CENTER, 100 WEST RANDOLPH, SUITE 11-300, CHICAGO, IL 60601, 312-814-6026

ROD R. BLAGOJEVICH, GOVERNOR

RENEE CIPRIANO, DIRECTOR

10/7/2004

Phone: 217/782-8482

Fax: 217/782-9891

E-mail: [janet.christer@epa.state.il.us](mailto:janet.christer@epa.state.il.us)

Marie Mueller  
Clayton Group Services  
3140 Finley Rd.  
Downers Grove, IL 60515

Request information regarding the location of community water supply wells in Cook County, IL (FOIA NO: 2004-2172)

Dear Marie Mueller:

The FOIA Sector, Bureau of Water has processed your request dated 09/28/2004 for public records pursuant to the Freedom of Information Act ("FOIA") (5ILCS 140/1 et. Seq.).

You requested information from Public Water Supplies pertaining to the nearest community water supply wells located in Sections 5 and 6, T39N, R4E and in Sections 31 and 32, T40N, R14E. Based upon the information provided, the project area appears to be located outside 2,500 feet from a community water supply well.

Effective September 1st, 2001, the Pleasant Valley Public Water District, in Peoria County, is the first and only regulated recharge area to designate a defined area with specific regulations in place for the area contributing groundwater to its public water supply wells pursuant to section 17.3 of the Illinois Environmental Protection Act (Act). Further, Class III Special Resource Groundwaters has been listed by the Illinois Pollution Control Board with respect to the contribution to Parker Fen in McHenry County.

The Illinois Department of Public Health should be contacted at (217) 782-5830 in regards to the regulations concerning private, semi-private or non-community public water supply wells and the Illinois State Water Survey should be contacted at (217) 333-9043 in regards to the location of these wells.



## ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

1021 NORTH GRAND AVENUE EAST, P.O. BOX 19276, SPRINGFIELD, ILLINOIS 62794-9276, 217-782-3397  
JAMES R. THOMPSON CENTER, 100 WEST RANDOLPH, SUITE 11-300, CHICAGO, IL 60601, 312-814-6026

ROD R. BLAGOJEVICH, GOVERNOR

RENEE CIPRIANO, DIRECTOR

I trust that this meets your needs. Should you require any further information, please feel free to contact me at the above referenced number.

Sincerely,

A handwritten signature in cursive script that reads "Janet Christer".

Janet Christer

FOIA Coordinator, Bureau of Water

cc: File



City of Chicago  
Richard M. Daley, Mayor  
Department of Water Management  
Richard A. Rice  
Commissioner

Ordine Water Purification Plant  
800 East Ohio Street  
Chicago, Illinois 60611  
(312) 744-7001  
(312) 744-9631 (FAX)  
(312) 744-2968 (TTY)

[www.cityofchicago.org/  
watermanagement](http://www.cityofchicago.org/watermanagement)

September 30, 2004

Ms. Marie E. Mueller  
Clayton Group Services  
3140 Finley Road  
Downers Grove, IL 60515  
Phone 630-795-1130

**Re: Site Address: 1720 N. Elston Avenue, Chicago, Illinois**

Dear Ms Mueller:

On behalf of the Department of Water Management, I am responding to your Freedom of Information Act request, for the above referenced location.

In your letter you requested a copy of documents pertaining to any public and private water supply wells within a radius of 1,500 feet from the address referenced above.

The Department of Water Management is not the keeper of record for the information that you are requesting. I recommend that you contact:

Janet Christer  
IEPA, Bureau of Water  
Division of Public Water Supplies #13  
1021 North Grand Avenue East  
P.O. Box 19276  
Springfield, IL 62794-9276  
217-782-8482 (Voice)

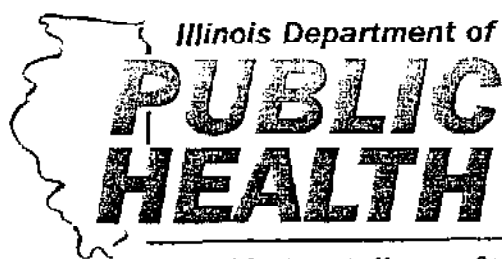
This information should satisfy your Freedom of Information Act Request from the Department of Water Management.

Sincerely,

Gary Litherland  
Freedom of Information Officer

cc: Richard A. Rice  
Thomas LaPorte





Rod R. Blagojevich, Governor  
Eric E. Whitaker, M.D., M.P.H., Director

525-535 West Jefferson Street • Springfield, Illinois 62761-0001 • [www.idph.state.il.us](http://www.idph.state.il.us)

October 15, 2004

Marie Mueller  
Clayton Group Services  
3140 Finley Rd.  
Downers Grove, IL 60515

RE: Illinois Freedom of Information Act request No. 05053167

Dear Ms. Mueller:

This letter is in response to your Illinois Freedom of Information Act (FOIA) request for water well information related to two Cook County locations – Township 39N, Range 14E, Sections 5 and 6 – Township 40N, Range 14E, Sections 31 and 32.

The Illinois Department of Public Health Division of Environmental Health has indicated that after a complete search of central office files, no information was found related to the above-cited property.

You may wish to contact the Illinois State Water Survey, 2204 Griffith Drive, Champaign, IL 61820 or by telephone 217-333-9043.

If I may be of any further assistance to you, please write to me at 535 W. Jefferson St., Springfield, IL 62761; or telephone me at 217-782-5750, TTY (hearing impaired use only) 800-547-0466.

Sincerely,

A handwritten signature in cursive script that reads "Brent M. DeMichael".

Brent M. DeMichael  
Freedom of Information Officer



## **APPENDIX D**

### **BORING LOGS**



BORING NO: B-1		PROJECT NO: 15-04183.00-003		PROJECT NAME: Sipi Metals					
BORING LOCATION: NE corner of North Section of building				COORDINATES:					
DRILLING CO: CS Drilling				DRILLER: M. Natali					
DRILLING EQUIP: Dingo 420				BOREHOLE DIA: 2"					
START DATE: 8/12/04		FINISH DATE: 8/12/04		LOGGED BY: D. Lamsma					
START TIME (hours): 0745		FINISH TIME (hours): 0830		CHECKED BY: M. Mueller					

DEPTH	DESCRIPTION	GRAPHIC	SAMPLES					PID		REMARKS
			NUMBER	RECOVERY	METHOD	MOISTURE	BLOW CNT (6")	SCAN	HEADSPACE	
0	CONCRETE									VOCs, 8 RCRA Metals, TCLP 8 RCRA Metals, pH
1	FILL Gravel, gray, moist			1.5/2	HPU	M	-	-	-	
2	FILL Sand, brown, moist, fine to coarse grained, some silt and gravel, concrete chips			1.5/2	HPU	M	-	4.6	6	
4	Refusal at 4.0 Feet									
8	NOTE: G. Phillips indicated that there is possibly a sub-floor at this location									
10										
12										
14										
16										
18										
20										



BORING NO: B-2		PROJECT NO: 15-04183.00-003		PROJECT NAME: Sipi Metals					
BORING LOCATION: Adjacent to abandoned 9,000 gal UST				COORDINATES:					
DRILLING CO: CS Drilling			DRILLER: M. Natall						
DRILLING EQUIP: Bobcat Geoprobe			BOREHOLE DIA: 2"						
START DATE: 8/13/04		FINISH DATE: 8/13/04				LOGGED BY: D. Lamsma			
START TIME (hours): 0830		FINISH TIME (hours): 1015				CHECKED BY: M. Mueller			

DEPTH	DESCRIPTION	GRAPHIC	SAMPLES					PID		REMARKS
			NUMBER	RECOVERY	METHOD	MOISTURE	BLOW CNT (6")	SCAN	HEADSPACE	
0	CONCRETE									
1	FILL Gravel, dark brown, moist, some sand			2/2	HPU	M	-	6.2	7	BTEX, PNAs
2	FILL Silty clay, gray, moist, some fine to coarse sand, soft, cohesive			2/2	HPU	M	-	0.9	7.3	
3	FILL Sand, black, saturated, fine to coarse grained, some silt and gravel			1.5/2	HPU	S	-	--	--	
4	SILTY CLAY (CL) Gray, moist, some medium to coarse sand, soft, cohesive			1.5/2	HPU	M	-	1.8	8.7	BTEX, PNAs
5	Grades brown, gray mottie, stiff at 8.0 feet			1.5/2	HPU	M	-	1.1	9.6	BTEX, PNAs
6				1.5/2	HPU	M	-	1.2	11.8	
7	End of Boring at 12.0 Feet									GW for BTEX, PNAs



BORING NO: B-3		PROJECT NO: 15-04183.00-003		PROJECT NAME: Sipi Metals					
BORING LOCATION: East side of Middle section of building				COORDINATES:					
DRILLING CO: CS Drilling				DRILLER: M. Natali					
DRILLING EQUIP: Bobcat Geoprobe				BOREHOLE DIA: 2"					
START DATE: 8/13/04		FINISH DATE: 8/13/04			LOGGED BY: D. Lamsma				
START TIME (hours): 0750		FINISH TIME (hours): 0750			CHECKED BY: M. Mueller				

DEPTH	DESCRIPTION	GRAPHIC	SAMPLES					PID		REMARKS
			NUMBER	RECOVERY	METHOD	MOISTURE	BLOW CNT (6")	SCAN	HEADSPACE	
0	CONCRETE									VOCs, PNAs, 8 RCRA Metals, TCLP 8 RCRA Metals, pH
1	FILL Silty clay, brown, moist, soft, cohesive			1.5/2	HPU	M	-	10.8	10.7	
2	FILL Gravel, light brown, moist, some sand			1.5/2	HPU	M/W	-	-	-	
4	FILL Sand, black, wet, fine to medium grained, with silt Saturated at 4.0 feet			1.5/2	HPU	S/M	-	-	-	
6	SILTY CLAY (CL) Gray, moist, some fine to medium sand, soft, cohesive			1.5/2	HPU	M	-	-	-	
8	End of Boring at 8.0 Feet									GW for VOCs, PNAs, 8 RCRA Metals, TCLP 8 RCRA Metals



BORING NO: B-4		PROJECT NO: 15-04183.00-003		PROJECT NAME: Slip Metals	
BORING LOCATION: North end of transformers				COORDINATES:	
DRILLING CO: CS Drilling			DRILLER: M. Natali		
DRILLING EQUIP: Dingo 420			BOREHOLE DIA: 2"		
START DATE: 8/12/04		FINISH DATE: 8/12/04		LOGGED BY: D. Lamsma	
START TIME (hours): 1217		FINISH TIME (hours): 1301		CHECKED BY: M. Mueller	

DEPTH	DESCRIPTION	GRAPHIC	SAMPLES					PID		REMARKS
			NUMBER	RECOVERY	METHOD	MOISTURE	BLOW CNT (6")	SCAN	HEADSPACE	
0	CONCRETE									
0	FILL Gravel, gray, moist			2/2	HPU	M	-	21.1	10.9	PNAs, PCBs, 8 RCRA Metals, TCLP 8 RCRA Metals, pH  BTEX, PNAs, PCBs, 8 RCRA Metals, TCLP 8 RCRA Metals, pH
2	CONCRETE									
2	FILL Sand, dark brown, moist, fine to coarse grained, some silt, brick fragments Saturated at 4.0 feet			2/2	HPU	M	-	36.9	52.7	
4										
4	SILTY CLAY (CL) Gray, moist, some medium to coarse sand, soft, cohesive			1.5/2	HPU	S/M	-	-	-	
6				1.5/2	HPU	M	-	-	-	
8	End of Boring at 8.0 Feet									
10										
12										
14										
16										
18										
20										



BORING NO: B-5		PROJECT NO: 15-04183.00-003		PROJECT NAME: Sipi Metals					
BORING LOCATION: Inside building; near transformers				COORDINATES:					
DRILLING CO: CS Drilling				DRILLER: M. Natali					
DRILLING EQUIP: Dingo 420				BOREHOLE DIA: 2"					
START DATE: 8/12/04		FINISH DATE: 8/12/04			LOGGED BY: D. Lamsma				
START TIME (hours): 0900		FINISH TIME (hours): 0925			CHECKED BY: M. Mueller				

DEPTH	DESCRIPTION	GRAPHIC	SAMPLES					PID		REMARKS
			NUMBER	RECOVERY	METHOD	MOISTURE	BLOW CNT (8")	SCAN	HEADSPACE	
0	CONCRETE									
0	FILL Sand, dark brown, black, moist, fine to coarse grained, some silt and gravel, dense			2/2	HPU	M	-	0.7	5.4	
2				2/2	HPU	M	-	21	11.4	
4				1.5/2	HPU	M	-	10.5	13.1	
6	Saturated at 6.0 feet			1.5/2	HPU	S/M	-	-	-	
8	SILTY CLAY (CL) Gray, moist, some medium to coarse sand, cohesive									
8	End of Boring at 8.0 Feet									
10										
12										
14										
16										
18										
20										



BORING NO: B-8		PROJECT NO: 15-04183.00-003		PROJECT NAME: Sipi Metals	
BORING LOCATION: Compressor room				COORDINATES:	
DRILLING CO: CS Drilling			DRILLER: M. Natall		
DRILLING EQUIP: Jackhammer Geoprobe			BOREHOLE DIA: 2"		
START DATE: 8/12/04		FINISH DATE: 8/12/04		LOGGED BY: D. Lamama	
START TIME (hours): 1335		FINISH TIME (hours): 1400		CHECKED BY: M. Mueller	

DEPTH	DESCRIPTION	GRAPHIC	SAMPLES					PID		REMARKS
			NUMBER	RECOVERY	METHOD	MOISTURE	BLOW CNT (6")	SCAN	HEADSPACE	
0	CONCRETE									
0	FILL			1/2	HPU	M	-	2.7	12.6	BTEX, PNAs, 8 RCRA Metals, TCLP 8 RCRA Metals, pH
2	Sand, dark brown, moist, fine to coarse grained, some silt, brick fragments, glass pieces			1/2	HPU	M	-	2	23.3	
4	Saturated, odor at 5.0 feet			1/2	HPU	M/S	-	--	--	
2	SILTY CLAY (CL)			1/2	HPU	S/M	-	--	--	GW for BTEX, PNAs, 8 RCRA Metals
8	End of Boring at 8.0 Feet									



BORING NO: B-7		PROJECT NO: 15-04183.00-003		PROJECT NAME: Sipi Metals						
BORING LOCATION: SE corner of middle section of building				COORDINATES:						
DRILLING CO: CS Drilling				DRILLER: M. Natali						
DRILLING EQUIP: Jackhammer Geobrobe				BOREHOLE DIA: 2"						
START DATE: 8/12/04		FINISH DATE: 8/12/04		LOGGED BY: D. Lamsma						
START TIME (hours): 1435		FINISH TIME (hours): 1505		CHECKED BY: M. Mueller						
DEPTH	DESCRIPTION	GRAPHIC	SAMPLES					PID		REMARKS
			NUMBER	RECOVERY	METHOD	MOISTURE	BLOW CNT (6")	SCAN	HEADSPACE	
0	CONCRETE									BTEX, PNAs, 8 RCRA Metals, TCLP & RCRA Metals, pH
1	FILL Sand, black, moist, fine to medium grained, some silty clay and gravel			1.5/2	HPU	M	-	8.8	9.7	
2				1.5/2	HPU	M	-	11	9.6	
4	More silty clay, saturated, wood chips at 4.0 feet			2/2	HPU	S	-	-	-	
6	SILTY CLAY (CL) Brown, gray mottle, some medium to coarse sand, cohesive			2/2	HPU	M	-	-	-	
8	End of Boring at 8.0 Feet									
10										
12										
14										
16										
18										
20										



BORING NO: B-8		PROJECT NO: 15-04183.00-003		PROJECT NAME: Sipl Metals	
BORING LOCATION: Liquid storage room				COORDINATES:	
DRILLING CO: CS Drilling			DRILLER: M. Natali		
DRILLING EQUIP: Dingo 420			BOREHOLE DIA: 2"		
START DATE: 8/12/04		FINISH DATE: 8/12/04		LOGGED BY: D. Lamsma	
START TIME (hours): 1000		FINISH TIME (hours): 1035		CHECKED BY: M. Mueller	

DEPTH	DESCRIPTION	GRAPHIC	SAMPLES					PID		REMARKS
			NUMBER	RECOVERY	METHOD	MOISTURE	BLOW CNT (6")	SCAN	HEADSPACE	
0	CONCRETE									
0	FILL									
0	Sand, black, moist, fine to coarse grained, some silt			2/2	HPU	M	-	11.3	49.1	BTEX, 8 RCRA Metals, TCLP 8 RCRA Metals, pH, Total Cyanide
2	SILTY CLAY (CL)			2/2	HPU	M	-	21.1	50.8	
2	Brown, gray, moist, some medium to coarse sand, cohesive			2/2	HPU	M	-	10	31.7	
4	Grades brown, gray mottle, trace fine gravel, stiff at 4.0 feet			2/2	HPU	M	-	5.5	13.2	BTEX, 8 RCRA Metals, TCLP 8 RCRA Metals, pH, Total Cyanide
6	Grades soft at 8.0 feet			2/2	HPU	M	-	9.5	8.8	
6	Sandy seam, gray, saturated, fine to medium grained from 8.7 to 8.8 feet			2/2	HPU	W/S/M	-	9.1	-	
8	Grades gray at 12.0 feet			2/2	HPU	M	-	1.8	-	GW for BTEX, 8 RCRA Metals, Total Cyanide
10	End of Boring at 15.0 Feet			3/3	HPU	M	-			



BORING NO: B-9		PROJECT NO: 15-04183.00-003		PROJECT NAME: Sipi Metals					
BORING LOCATION: Outside SW corner of building				COORDINATES:					
DRILLING CO: CS Drilling				DRILLER: M. Natali					
DRILLING EQUIP: Bobcat Geoprobe				BOREHOLE DIA: 2"					
START DATE: 8/13/04		FINISH DATE: 8/13/04		LOGGED BY: D. Lamsma					
START TIME (hours): 1120		FINISH TIME (hours): 1133		CHECKED BY: M. Mueller					

DEPTH	DESCRIPTION	GRAPHIC	SAMPLES					PID		REMARKS
			NUMBER	RECOVERY	METHOD	MOISTURE	BLOW CNT (6")	SCAN	HEADSPACE	
0	ASPHALT									
1	FILL Sand, black, moist, fine to coarse grained, some gravel			2/2	HPU	M	-	0.9	7.7	
2				2/2	HPU	M/W	-	1	10.7	
3	Wet at 3.5 feet									
4	SILTY CLAY (CL) Brown, gray mottle, some medium to coarse sand, stiff, cohesive			2/2	HPU	M	-	0.8	8	BTEX
5				2/2	HPU	M	-	0.8	9.1	
6				2/2	HPU	M	-	0.8	12.8	BTEX
7				2/2	HPU	M	-	0.8	9	BTEX
8										
9										
10										
11										
12	End of Boring at 12.0 Feet									
13										
14										
15										
16										
17										
18										
19										
20										



BORING NO: B-10		PROJECT NO: 15-04183.00-003		PROJECT NAME: Sipi Metals					
BORING LOCATION: North parking lot				COORDINATES:					
DRILLING CO: CS Drilling				DRILLER: M. Natall					
DRILLING EQUIP: Diedrich D-120				BOREHOLE DIA: 2"					
START DATE: 8/9/04		FINISH DATE: 8/9/04				LOGGED BY: D. Lamsma			
START TIME (hours): 0717		FINISH TIME (hours): 0805				CHECKED BY: M. Mueller			

DEPTH	DESCRIPTION	GRAPHIC	SAMPLES					PID		REMARKS
			NUMBER	RECOVERY	METHOD	MOISTURE	BLOW CNT (6")	SCAN	HEADSPACE	
0	ASPHALT									
0.5	FILL Gravel, gray, moist, some sand			1.75/2	HPU	M	-	0	0	
2	FILL Sand, dark brown, moist, fine to medium grained, some silt, trace coarse sand			1.75/2	HPU	M	-	0	0	
4	FILL Silty clay, dark brown, moist, some fine to coarse sand, glass pieces			1.5/2	HPU	M	-	446	191	BTEX, PNAs
6										
8	TOPSOIL Black, moist, some fine sand, silty Saturated, sheen at 8.0 feet			1.5/2	HPU	M	-	102	10.9	
10	SILTY CLAY (CL) Gray, brown, moist, some medium to coarse sand, soft			2/2	HPU	S/M	-	-	-	
12				2/2	HPU	M	-	-	-	GW for BTEX, PNAs
12.0	End of Boring at 12.0 Feet									
14										
16										
18										
20										



BORING NO: B-11		WELL NO: MW-3		PROJECT NO: 15-04183.00-003		PROJECT NAME: Sipi Metals	
BORING LOCATION: North parking lot				COORDINATES:			
DRILLING CO: CS Drilling		DRILLER: M. Natali		LOGGED BY: D. Lamsma			
DRILLING EQUIP: Diedrich D-120		SCREEN INTERVAL: 5.0 to 15.0 ft bgs		CHECKED BY: M. Mueller			
STATIC WATER LEVEL: 3.70' to c		SCREEN MTU/SLOT: PVC/0.01		START DATE: 8/9/04			
BOREHOLE DIA: 8.25"		STICKUP: Flushmount		START TIME (hours): 0900			
TOP of CASING ELEVATION: 101.82' Rel. Elev.		G.S. ELEVATION: 102.14' Rel Elev.		FINISH DATE: 8/9/04			
RISER DIA/MTU/LGTH: 2"/PVC/5'		DEV. METHODS: Bailor		FINISH TIME (hours): 0927			

DEPTH	DESCRIPTION	GRAPHIC	WELL	SAMPLES					PID		REMARKS	
				NUMBER	RECOVERY	METHOD	MOISTURE	BLOW CNT (6")	SCAN	HEADSPACE		
0	ASPHALT											
1	FILL Gravel, gray, moist, some fine to coarse sand				2/2	HPU	M	-	0	7.6		
2	FILL Sand, dark brown, moist, fine to medium grained, with silt, brick fragments				2/2	HPU	M	-	55	258		
3	FILL Silty clay, dark brown, moist, some medium to coarse sand				1/2	HPU	M	-	681	798		BTEX, PNAs
4	FILL Sand, black, moist, fine to medium grained, some silt, odor				1/2	HPU	M	-	260	257		
5	PEAT (PT) Black, moist, soft, organics											
6	SAND (SW) Brown, saturated, fine to coarse grained, some silt				2/2	HPU	S/M	-	-	-		
7	SILTY CLAY (CL) Brown, gray mottle, some coarse sand, stiff				2/2	HPU	M	-	-	-		
8					3/3	HPU	M	-	-	-		
9	End of Boring at 15.0 Feet											



BORING NO: B-12		PROJECT NO: 15-04183.00-003		PROJECT NAME: Sipi Metals	
BORING LOCATION: West of north parking lot				COORDINATES:	
DRILLING CO: CS Drilling			DRILLER: M. Natall		
DRILLING EQUIP: Diedrich D-120			BOREHOLE DIA: 2"		
START DATE: 8/9/04		FINISH DATE: 8/9/04		LOGGED BY: D. Lamama	
START TIME (hours): 0825		FINISH TIME (hours): 0845		CHECKED BY: M. Mueller	

DEPTH	DESCRIPTION	GRAPHIC	SAMPLES					PID		REMARKS
			NUMBER	RECOVERY	METHOD	MOISTURE	BLOW CNT (6")	SCAN	HEADSPACE	
0	ASPHALT									
0	FILL Gravel, gray, moist, some fine to coarse sand			2/2	HPU	M	-	0	0	BTEX, PNAs
2	FILL Sand, dark brown, moist, fine to medium grained, some silt			2/2	HPU	M	-	0	0	
4	TOPSOIL Black, moist, silty, some fine sand			2/2	HPU	M	-	0	0	
2	SILTY CLAY (CL) Gray, moist, some medium to coarse sand, soft, cohesive Grades stiff at 8.0 feet			2/2	HPU	M	-	0	0	BTEX, PNAs
8				1.5/2	HPU	M	-	0	0	BTEX, PNAs
10				1.5/2	HPU	M	-	0	0	
12	End of Boring at 12.0 Feet									
14										
16										
18										
20										



BORING NO: B-13		PROJECT NO: 15-04183.00-003		PROJECT NAME: Sipi Metals					
BORING LOCATION: West of Taylor Bayhouse				COORDINATES:					
DRILLING CO: CS Drilling				DRILLER: M. Natali					
DRILLING EQUIP: Diedrich D-120				BOREHOLE DIA: 2"					
START DATE: 8/10/04		FINISH DATE: 8/10/04		LOGGED BY: D. Lamsma					
START TIME (hours): 0745		FINISH TIME (hours): 0800		CHECKED BY: M. Mueller					

DEPTH	DESCRIPTION	GRAPHIC	SAMPLES					PID		REMARKS
			NUMBER	RECOVERY	METHOD	MOISTURE	BLOW CNT (6")	SCAN	HEADSPACE	
0	ASPHALT									
0	FILL									
2	Sand, black, moist, fine to coarse grained, some gravel			2/2	HPU	M	-	0	3.9	8 RCRA Metals, TCLP 8 RCRA Metals, pH
2	Grades tan, fine to medium grained at 2.0 feet			2/2	HPU	M/W	-	0.2	2.8	8 RCRA Metals, TCLP 8 RCRA Metals, pH
4	Wet at 3.5 feet			1.5/2	HPU	S/M	-	-	-	
4	Grades dark brown, saturated, fine to coarse grained, some fine gravel at 4.0 feet									
6	SILTY CLAY (CL)									
6	Gray, moist, soft, cohesive			1.5/2	HPU	M	-	0	2.4	
8	Grades brown, gray mottle, some coarse sand and fine gravel at 8.0 feet			2/2	HPU	M	-	-	-	
10				2/2	HPU	M	-	-	-	
12	End of Boring at 12.0 Feet									
14										
16										
18										
20										



BORING NO: B-14	WELL NO: MW-2	PROJECT NO: 15-04183.00-003	PROJECT NAME: Sipi Metals
BORING LOCATION: West side of building		COORDINATES:	
DRILLING CO: CS Drilling	DRILLER: M. Natall	LOGGED BY: D. Lamsma	
DRILLING EQUIP: Diedrich D-120	SCREEN INTERVAL: 5.0 to 15.0 ft bgs	CHECKED BY: M. Mueller	
STATIC WATER LEVEL: 9.17' to c	SCREEN MTL/SLOT: PVC/0.01	START DATE: 8/9/04	
BOREHOLE DIA: 8.25"	STICKUP: Flushmount	START TIME (hours): 1100	
TOP of CASING ELEVATION: 100.85' Rel. Elev.	G.S. ELEVATION: 101.40' Rel. Elev.	FINISH DATE: 8/8/04	
RISER DIA/MTL/LGTH: 2"/PVC/5'	DEV. METHODS: Baller	FINISH TIME (hours): 1150	

DEPTH	DESCRIPTION	GRAPHIC	WELL	SAMPLES					PID		REMARKS
				NUMBER	RECOVERY	METHOD	MOISTURE	BLOW CNT (6")	SCAN	HEADSPACE	
0	CONCRETE										
0	FILL Gravel, gray, moist, some sand			2/2	HPU	M	-	-	-	-	
2	FILL Silty clay, dark brown, moist, some fine to coarse sand, stiff, glass pieces			2/2	HPU	M	-	0	0	0	
4	SILTY CLAY (CL) Gray, moist, some medium to coarse sand, trace fine gravel, stiff			1.5/2	HPU	M	-	0	0	0	8 RCRA Metals, TCLP 8 RCRA Metals, pH
6	Grades brown, gray mottle at 5.5 feet			1.5/2	HPU	M	-	0	0	0	8 RCRA Metals, TCLP 8 RCRA Metals, pH
8				2/2	HPU	M	-	0	0	0	
10				2/2	HPU	M	-	0	0	0	8 RCRA Metals, TCLP 8 RCRA Metals
12	Grades gray, some fine to medium sand, very soft, cohesive at 12.0 feet			2/2	HPU	M	-	0	0	0	
14				2/2	HPU	M	-	0	0	0	
16	End of Boring at 16.0 Feet										
18											
20											



BORING NO: B-15		PROJECT NO: 15-04183.00-003		PROJECT NAME: Sipi Metals			
BORING LOCATION: North of propane tank				COORDINATES:			
DRILLING CO: CS Drilling			DRILLER: M. Natali				
DRILLING EQUIP: Diedrich D-120			BOREHOLE DIA: 2"				
START DATE: 8/9/04		FINISH DATE: 8/9/04		LOGGED BY: D. Lamsma			
START TIME (hours): 1430		FINISH TIME (hours): 1510		CHECKED BY: M. Mueller			

DEPTH	DESCRIPTION	GRAPHIC	SAMPLES					PID		REMARKS
			NUMBER	RECOVERY	METHOD	MOISTURE	BLOW CNT (6")	SCAN	HEADSPACE	
0	ASPHALT									
0	FILL Gravel, gray, moist, some fine to coarse sand			2/2	HPU	M	-	0	27.7	BTEX, PNAs
2	FILL Sand and silty clay, dark brown, moist, fine to medium sand, brick fragments, nails			2/2	HPU	M	-	0	67.6	
4	Grades fine to coarse sand, saturated, odor at 4.0 feet			2/2	HPU	S/M	-	0	0	
6	SILTY CLAY (CL) Brown, gray mottle, some medium to coarse sand			2/2	HPU	M	-	13	0	BTEX, PNAs
8				2/2	HPU	M	-	7.1	0.8	
10				2/2	HPU	M	-	0	0	BTEX, PNAs
12	NO RECOVERY									
14				0/3	HPU	-	-	-	-	
18										
18										
20										



BORING NO: B-16		PROJECT NO: 15-04183.00-003		PROJECT NAME: Slpl Metals					
BORING LOCATION: North of retention pond				COORDINATES:					
DRILLING CO: CS Drilling				DRILLER: M. Natall					
DRILLING EQUIP: Diedrich D-120				BOREHOLE DIA: 2"					
START DATE: 8/10/04		FINISH DATE: 8/10/04				LOGGED BY: D. Lamsma			
START TIME (hours): 0717		FINISH TIME (hours): 0730				CHECKED BY: M. Mueller			

DEPTH	DESCRIPTION	GRAPHIC	SAMPLES					PID		REMARKS
			NUMBER	RECOVERY	METHOD	MOISTURE	BLOW CNT (6")	SCAN	HEADSPACE	
0	ASPHALT									8 RCRA Metals, TCLP 8 RCRA Metals, pH  8 RCRA Metals, TCLP 8 RCRA Metals, pH
2	FILL Sand, brown, black, moist, fine to medium grained, some gravel Grades tan at 2.2 feet		2/2	HPU	M	-	0	2.1		
4	Saturated at 4.0 feet		2/2	HPU	M	-	0	1.6		
6	SILTY CLAY (CL) Brown, gray mottle, moist, some coarse sand, stiff		2/2	HPU	S/M	-	0	2.5		
8			2/2	HPU	M	-	0	2.1		
10			1.5/2	HPU	M	-	-	-		
12	End of Boring at 12.0 Feet									
14										
16										
18										
20										



BORING NO: B-17	WELL NO: MW-4	PROJECT NO: 15-04183.00-003	PROJECT NAME: Sipi Metals
BORING LOCATION: East of Wheelabrator Bayhouse		COORDINATES:	
DRILLING CO: CS Drilling	DRILLER: M. Natali		LOGGED BY: D. Lamsma
DRILLING EQUIP: Diedrich D-120	SCREEN INTERVAL: 5.0 to 15.0 ft bgs		CHECKED BY: M. Mueller
STATIC WATER LEVEL: 11.26' toe	SCREEN MTL/SLOT: PVC/0.01		START DATE: 8/10/04
BOREHOLE DIA: 8.25"	STICKUP: Flushmount		START TIME (hours): 1018
TOP of CASING ELEVATION: 100.40' Rel. Elev.	G.S. ELEVATION: 100.82' Rel. Elev.		FINISH DATE: 8/10/04
RISER DIA/MTL/LGTH: 2"/PVC/5'	DEV. METHODS: Baller		FINISH TIME (hours): 1040

DEPTH	DESCRIPTION	GRAPHIC	WELL	SAMPLES					PID		REMARKS
				NUMBER	RECOVERY	METHOD	MOISTURE	BLOW CNT (6")	SCAN	HEADSPACE	
0	ASPHALT										
0	FILL Gravel, gray, moist, some sand			2/2	HPU	M	-	0.7	4.4		8 RCRA Metals, TCLP 8 RCRA Metals, pH
2	FILL Sand, black, moist, fine to coarse grained, some silt and gravel, brick fragments, slag			2/2	HPU	M	-	1.6	3.3		8 RCRA Metals, TCLP 8 RCRA Metals, pH
4	SILTY CLAY (CL) Gray, moist, some medium sand Grades brown, gray mottle, some coarse sand at 4.0 feet			1.5/2	HPU	M	-	0.5	2.9		8 RCRA Metals, TCLP 8 RCRA Metals
6				1.5/2	HPU	M	-	0	3.1		
8	Trace gravel from 8.0 to 12.0 feet			1.75/2	HPU	M	-	0	3.5		
10				1.75/2	HPU	M	-	0	2.7		
12				3/3	HPU	M	-	0	1		
14											
16	End of Boring at 15.0 Feet										
18											
20											



BORING NO: B-18		PROJECT NO: 15-04183.00-003		PROJECT NAME: Sipl Metals	
BORING LOCATION: Outside fence, east of railroad tracks				COORDINATES:	
DRILLING CO: CS Drilling			DRILLER: M. Natali		
DRILLING EQUIP: Diedrich D-120			BOREHOLE DIA: 8.25"		
START DATE: 8/10/04		FINISH DATE: 8/10/04		LOGGED BY: D. Lamsma	
START TIME (hours): 1418		FINISH TIME (hours): 1435		CHECKED BY: M. Mueller	

DEPTH	DESCRIPTION	GRAPHIC	SAMPLES					PID		REMARKS
			NUMBER	RECOVERY	METHOD	MOISTURE	BLOW CNT (6")	SCAN	HEADSPACE	
0	TOPSOIL Black, moist, sandy, roots									VOCs, PNAs, 8 RCRA Metals, TCLP 8 RCRA Metals, PH
2	FILL Sand, tan, moist, fine to medium grained			2/2	HPU	M	-	0	4.1	
4				2/2	HPU	M	-	1.6	2.9	
6				2/2	HPU	M	-	1	3	
8				2/2	HPU	M	-	1	3.5	
10	Saturated at 8.0 feet Grades dark brown, fine to coarse grained, wood chips at 8.5 feet			1.5/2	HPU	S	-	-	-	VOCs, PNAs, 8 RCRA Metals, TCLP 8 RCRA Metals, PH
12	SILTY CLAY (CL) Brown, gray, moist, some medium to coarse sand, soft, cohesive			1.5/2	HPU	M	-	-	-	
14	End of boring at 12.0 Feet									
16										
18										
20										



BORING NO: B-19		PROJECT NO: 15-04183.00-003		PROJECT NAME: Sipl Metals			
BORING LOCATION: Outside fence; west of storage bins				COORDINATES:			
DRILLING CO: CS Drilling			DRILLER: M. Natali				
DRILLING EQUIP: Diedrich D-120			BOREHOLE DIA: 2"				
START DATE: 8/10/04		FINISH DATE: 8/10/04		LOGGED BY: D. Lamsma			
START TIME (hours): 1446		FINISH TIME (hours): 1500		CHECKED BY: M. Mueller			

DEPTH	DESCRIPTION	GRAPHIC	SAMPLES					PID		REMARKS
			NUMBER	RECOVERY	METHOD	MOISTURE	BLOW CNT (6")	SCAN	HEADSPACE	
0	FILL Sand, brown, moist, fine to medium grained, trace fine gravel									VOCs, PNAs, 8 RCRA Metals, TCLP 8 RCRA Metals, pH
1.5/2			HPU	M	-	0	2.8			
1.5/2			HPU	M	-	0	3.2			
2/2			HPU	M	-	0	3.7			
4	Grades tan, no gravel at 4.0 feet		2/2	HPU	M/W	-	0	2.3	VOCs, PNAs, 8 RCRA Metals, TCLP 8 RCRA Metals, pH	
6	Wet at 7.0 feet		2/2	HPU	M/W	-	0	2.3		
8	Grades dark brown, fine to coarse grained at 8.0 feet		2/2	HPU	W/M	-	-	-		
10	SILTY CLAY (CL) Brown, gray, moist, some medium to coarse sand, soft, cohesive		2/2	HPU	M	-	-	-		
12	End of Boring at 12.0 Feet									



BORING NO: B-20		PROJECT NO: 15-04183.00-003		PROJECT NAME: Sipi Metals	
BORING LOCATION: Outside fence; west of retention pond				COORDINATES:	
DRILLING CO: CS Drilling			DRILLER: M. Natali		
DRILLING EQUIP: Diedrich D-120			BOREHOLE DIA: 2"		
START DATE: 8/10/04		FINISH DATE: 8/10/04		LOGGED BY: D. Lamsma	
START TIME (hours): 1515		FINISH TIME (hours): 1523		CHECKED BY: M. Mueller	

DEPTH # m	DESCRIPTION	GRAPHIC	SAMPLES					PID		REMARKS
			NUMBER	RECOVERY	METHOD	MOISTURE	BLOW CNT (6")	SCAN	HEADSPACE	
0	<b>FILL</b> Sand, brown, moist, fine to coarse grained, some silt and gravel			2/2	HPU	M	-	0	4.6	VOCs, PNAs, 8 RCRA Metals, TCLP 8 RCRA Metals, pH
2	Grades to silty clay, brown, moist, stiff from 2.5 to 3.0 feet Grades tan, saturated, fine to medium grained at 3.0 feet Wood chips from 3.7 to 4.0 feet			2/2	HPU	M/S	-	0	3.4	VOCs, PNAs, 8 RCRA Metals, TCLP 8 RCRA Metals, pH
4	<b>SILTY CLAY (CL)</b> Gray, moist, some medium to coarse sand and fine gravel			2/2	HPU	S/M	-	-	-	
6				2/2	HPU	M	-	-	-	
8	End of Boring at 8.0 Feet									
10										
12										
14										
16										
18										
20										



BORING NO: B-21	WELL NO: MW-6	PROJECT NO: 15-04183.00-003	PROJECT NAME: Sipi Metals
BORING LOCATION: North of 1660 Besly Ct.		COORDINATES:	
DRILLING CO: CS Drilling	DRILLER: M. Natali	LOGGED BY: D. Lamsma	
DRILLING EQUIP: Diedrich D-120	SCREEN INTERVAL: 4.0 to 14.0 ft bgs	CHECKED BY: M. Mueller	
STATIC WATER LEVEL: 3.67' bgs	SCREEN MTL/SLOT: PVC/0.01	START DATE: 8/11/04	
BOREHOLE DIA: 8.25"	STICKUP: Flushmount	START TIME (hours): 0755	
TOP of CASING ELEVATION: 100.51' Rel. Elev.	G.S. ELEVATION: 101.00' Rel. Elev.	FINISH DATE: 8/11/04	
RISER DIA/MTL/LGTH: 2"/PVC/4'	DEV. METHODS: Batter	FINISH TIME (hours): 0820	

DEPTH	DESCRIPTION	GRAPHIC	WELL	SAMPLES					PID		REMARKS
				NUMBER	RECOVERY	METHOD	MOISTURE	BLOW CNT (6")	SCAN	HEADSPACE	
0	ASPHALT										
1	FILL Sand, dark brown, moist, fine to coarse grained, some silty clay and gravel			1.5/2	HPU	M	-	1.5	2.8		VOCs
2				1.5/2	HPU	M	-	1.2	3.1		
3	Saturated at 4.0 feet			2/2	HPU	S/M	-	-	-		
4				2/2	HPU	M	-	-	-		
5	SILTY CLAY (CL) Gray, moist, some medium to coarse sand, soft			1.75/2	HPU	M	-	-	-		
6	Grades brown, gray mottle at 6.0 feet			1.75/2	HPU	M	-	-	-		
7				2/3	HPU	M	-	-	-		
8											
9											
10											
11											
12											
13											
14											
15	End of Boring at 15.0 Feet										
16											
17											
18											
19											
20											



BORING NO: B-22		PROJECT NO: 15-04183.00-003			PROJECT NAME: Sipi Metals				
BORING LOCATION: Basement of 1660 Besly Ct.					COORDINATES:				
DRILLING CO: CS Drilling				DRILLER: M. Natali					
DRILLING EQUIP: Dingo 420				BOREHOLE DIA: 2"					
START DATE: 8/11/04			FINISH DATE: 8/11/04			LOGGED BY: D. Lamsma			
START TIME (hours): 1025			FINISH TIME (hours): 1041			CHECKED BY: M. Mueller			

DEPTH	DESCRIPTION	GRAPHIC	SAMPLES					PID		REMARKS
			NUMBER	RECOVERY	METHOD	MOISTURE	BLOW CNT (5')	SCAN	HEADSPACE	
0	CONCRETE									
0	FILL: Sand, brown, moist, fine to medium grained, some silt			2/2	HPU	M	-	4	2.8	
2	SILTY CLAY (CL) Brown, gray mottle, moist, some medium to coarse sand, stiff, cohesive			2/2	HPU	M	-	1.8	2.3	
4				2/2	HPU	M	-	2.5	3.2	VOCs, PNAs
6	Trace fine gravel from 6.0 to 8.0 feet									
8	Sand seam, saturated from 6.8 to 7.0 feet			2/2	HPU	M/S	-	3.4	2.9	
10				1.5/2	HPU	M	-	-	-	
12				1.5/2	HPU	M	-	-	-	
12	End of Boring at 12.0 Feet									GW for VOCs, PNAs



BORING NO: B-23		PROJECT NO: 15-04183.00-003		PROJECT NAME: Sipi Metals			
BORING LOCATION: Basement of 1880 Besly Ct.				COORDINATES:			
DRILLING CO: CS Drilling			DRILLER: M. Natali				
DRILLING EQUIP: Dingo 420			BOREHOLE DIA: 2"				
START DATE: 8/11/04		FINISH DATE: 8/11/04		LOGGED BY: D. Lamama			
START TIME (hours): 0930		FINISH TIME (hours): 1018		CHECKED BY: M. Mueller			

DEPTH	DESCRIPTION	GRAPHIC	SAMPLES					PID		REMARKS
			NUMBER	RECOVERY	METHOD	MOISTURE	BLOW CNT (ft)	SCAN	HEADSPACE	
0	CONCRETE									
0	FILL Sand, dark brown, moist, fine to coarse grained, some silt and gravel			1.5/2	HPU	M	-	4.6	3	VOCs, PNA's
2	SILTY CLAY (CL) Brown, gray mottle, some medium to coarse sand, soft, cohesive			1.5/2	HPU	M	-	3.3	3	
4	Grades stiff at 4.0 feet			0.5/2	HPU	M	-	5	2.3	
6				0.5/2	HPU	M	-	3.4	2.2	
8	Grades soft at 8.0 feet			1.75/2	HPU	M	-	3.8	2.9	VOCs, PNA's
10	Grades gray at 10.0 feet			1.75/2	HPU	M	-	3.3	2.8	
12				3/3	HPU	M	-	3.2	4.4	VOCs, PNA's
14										
16	End of Boring at 15.0 Feet									
18										
20										



BORING NO: B-24		PROJECT NO: 15-04183.00-003		PROJECT NAME: Sipi Metals					
BORING LOCATION: In parking lot north of 1880 Besly Ct.				COORDINATES:					
DRILLING CO: CS Drilling				DRILLER: M. Natali					
DRILLING EQUIP: Diedrich D-120				BOREHOLE DIA: 2"					
START DATE: 8/11/04		FINISH DATE: 8/11/04				LOGGED BY: D. Lamsma			
START TIME (hours): 0718		FINISH TIME (hours): 0734				CHECKED BY: M. Mueller			

DEPTH	DESCRIPTION	GRAPHIC	SAMPLES					PID		REMARKS
			NUMBER	RECOVERY	METHOD	MOISTURE	BLOW CNT (6")	SCAN	HEADSPACE	
0	ASPHALT									
0	FILL									
2	Sand, black, moist, fine to coarse grained, some silt and gravel			2/2	HPU	M	-	0	2.2	
2				2/2	HPU	M	-	0.6	2.9	
4	SILTY CLAY (CL)									
4	Gray, moist, some fine to medium sand, soft			1/2	HPU	M	-	0.5	3.2	VOCs, PNAs
6				1/2	HPU	M	-	0.8	2.1	VOCs, PNAs
8	Grades brown, gray mottle, some medium to coarse sand and fine gravel, stiff at 8.0 feet			2/2	HPU	M	-	1	2.3	
10				2/2	HPU	M	-	1.3	3.3	VOCs, PNAs
12	End of boring at 12.0 Feet									



BORING NO: B-25		PROJECT NO: 15-04183.00-003		PROJECT NAME: Sipi Metals			
BORING LOCATION: Inside the Forsyth building				COORDINATES:			
DRILLING CO: CS Drilling			DRILLER: M. Natali				
DRILLING EQUIP: Dingo 420			BOREHOLE DIA: 2"				
START DATE: 8/11/04		FINISH DATE: 8/11/04		LOGGED BY: D. Lamsma			
START TIME (hours): 1320		FINISH TIME (hours): 1405		CHECKED BY: M. Mueller			

DEPTH	DESCRIPTION	GRAPHIC	SAMPLES					PID		REMARKS
			NUMBER	RECOVERY	METHOD	MOISTURE	BLOW CNT (6")	SCAN	HEADSPACE	
0	CONCRETE									
0	FILL Sand, brown, black, moist, fine to coarse grained, some silt, brick fragments, concrete pieces			2/2	HPU	M	-	19.7	3.6	VOCs, PNAs, 8 RCRA Metals, TCLP 8 RCRA Metals, pH
2				2/2	HPU	M	-	17.9	3.6	
4	Ashpalt and glass pieces from 4.0 to 8.0 feet			1.25/2	HPU	M	-	15.8	3.7	
6				1.25/2	HPU	M	-	16.7	4	
8	Saturated, wood chips at 8.5 feet			1.25/2	HPU	M/S/M	-	-	-	VOCs, PNAs, 8 RCRA Metals, TCLP 8 RCRA Metals, pH
10	SILTY CLAY (CL) Brown, moist, some medium to coarse sand, stiff, cohesive			1.25/2	HPU	M	-	-	-	
12	End of Boring at 12.0 Feet									



BORING NO: B-27	WELL NO: MW-1	PROJECT NO: 15-04183.00-003	PROJECT NAME: Sipi Metals
BORING LOCATION: Northwest of propane tank		COORDINATES:	
DRILLING CO: CS Drilling	DRILLER: M. Natali	LOGGED BY: D. Lamsma	
DRILLING EQUIP: Diedrich D-120	SCREEN INTERVAL: 4.0 to 14.0 ft bgs	CHECKED BY: M. Mueller	
STATIC WATER LEVEL: 2.50' toe	SCREEN MTL/SLOT: PVC/0.01	START DATE: 8/10/04	
BOREHOLE DIA: 8.25"	STICKUP: Flushmount	START TIME (hours): 0820	
TOP of CASING ELEVATION: 101.19' Rel. Elev.	G.S. ELEVATION: 101.74' Rel. Elev.	FINISH DATE: 8/10/04	
RISER DIA/MTL/LGTH: 2"/PVC/4"	DEV. METHODS: Bailer	FINISH TIME (hours): 0908	

DEPTH	DESCRIPTION	GRAPHIC	WELL	SAMPLES					PID		REMARKS
				NUMBER	RECOVERY	METHOD	MOISTURE	BLOW CNT (6")	SCAN	HEADSPACE	
0	CONCRETE										8 RCRA Metals, TCLP 8 RCRA Metals, pH
2	FILL Sand, dark brown, moist, fine to coarse grained, some gravel, slag, wood chips  Wet at 3.0 feet Saturated at 3.5 feet			1.2/2	HPU	M	-	-	0	-	
4				1.2/2	HPU	W/S	-	-	-	-	
6	SILTY CLAY (CL) Brown, gray mottle, moist, some coarse sand, soft			1.5/2	HPU	S/M	-	-	-	-	
8				1.5/2	HPU	M	-	-	-	-	
10	NO RECOVERY			0/2	HPU	-	-	-	-	-	
12				0/2	HPU	-	-	-	-	-	
14	SILTY CLAY (CL) Brown, gray mottle, moist, some coarse sand, soft			2/3	HPU	M	-	-	-	-	
16											
18											
20											



BORING NO: B-28		WELL NO: MW-5		PROJECT NO: 15-04183.00-003		PROJECT NAME: Sipi Metals	
BORING LOCATION: NW corner of Elston Ave and Wabansia Ave				COORDINATES:			
DRILLING CO: CS Drilling		DRILLER: M. Natali		LOGGED BY: D. Lamsma			
DRILLING EQUIP: Diedrich D-120		SCREEN INTERVAL: 5.0 to 15.0 ft bgs		CHECKED BY: M. Mueller			
STATIC WATER LEVEL: 3.78' to c		SCREEN MTL/SLOT: PVC/0.01		START DATE: 8/11/04			
BOREHOLE DIA: 8.25"		STICKUP: Flushmount		START TIME (hours): 1514			
TOP of CASING ELEVATION: 101.82' Rel. Elev.		G.S. ELEVATION: 102.27' Rel. Elev.		FINISH DATE: 8/11/04			
RISER DIA/MTL/LGTH: 2"/PVC/5'		DEV. METHODS: Baller		FINISH TIME (hours): 1535			

DEPTH	DESCRIPTION	GRAPHIC	WELL	SAMPLES					PID		REMARKS
				NUMBER	RECOVERY	METHOD	MOISTURE	BLOW CNT (5')	SCAN	HEADSPACE	
0	ASPHALT										VOCs, PNAs, 8 RCRA Metals, TCLP 8 RCRA Metals, pH
1	FILL Gravel, gray, moist, some sand			1.5/2	HPU	M	-	0.1	1.8		
2	FILL Sand, dark brown, moist, fine to medium grained, some silt			1.5/2	HPU	M	-	0.1	12		
4	NO RECOVERY Bottom 2.5 feet of sample tube was wet			0/2	HPU	-	-	-	-		
6				0/2	HPU	-	-	-	-		
8	SILTY CLAY (CL) Brown, gray mottle, stiff, cohesive			2/2	HPU	M	-	-	-		
10				2/2	HPU	M	-	-	-		
12				3/3	HPU	M	-	-	-		
14											
16	End of Boring at 15.0 Feet										



BORING NO: B-29		PROJECT NO: 15-04183.00-004		PROJECT NAME: Sipi Metals					
BORING LOCATION: Near casting ring				COORDINATES:					
DRILLING CO: CS Drilling				DRILLER: A. Mendez					
DRILLING EQUIP: Dingo 420				BOREHOLE DIA: 2"					
START DATE: 9/29/04		FINISH DATE: 9/29/04				LOGGED BY: D. Lamsma			
START TIME (hours): 1455		FINISH TIME (hours): 1507				CHECKED BY: M. Germann			

DEPTH	DESCRIPTION	GRAPHIC	SAMPLES					PID		REMARKS
			NUMBER	RECOVERY	METHOD	MOISTURE	BLOW CNT (6")	SCAN	HEADSPACE	
0	CONCRETE									PNAs, TCLP Lead
1	FILL Sand, dark brown, moist, some gravel			2/2	HPU	M		4.1	5.2	
2				2/2	HPU	M		3.6	5.9	
3	FILL Silty sand, dark brown, wet, some clay and gravel			1.5/2	HPU	W		--	--	
4	SILTY CLAY (CL) Gray, moist, some medium to coarse sand, cohesive			1.5/2	HPU	W/M		--	--	GW for PNAs
5	End of Boring at 8.0 Feet									



BORING NO: B-30		PROJECT NO: 15-04183.00-004		PROJECT NAME: Sipi Metals			
BORING LOCATION: Adjacent to B-3				COORDINATES:			
DRILLING CO: CS Drilling			DRILLER: A. Mendez				
DRILLING EQUIP: Dingo 420			BOREHOLE DIA: 2"				
START DATE: 9/28/04		FINISH DATE: 9/28/04			LOGGED BY: D. Lamsma		
START TIME (hours): 0930		FINISH TIME (hours): 0940			CHECKED BY: M. Germann		

DEPTH	DESCRIPTION	GRAPHIC	SAMPLES					PID		REMARKS
			NUMBER	RECOVERY	METHOD	MOISTURE	BLOW CNT (6")	SCAN	HEADSPACE	
0	CONCRETE									
1	FILL			1.5/2	HPU	M		-	-	
2	Sand and gravel, gray, brown, moist									
3	Grades black, wet, fine to medium sand, with silt at 3.0 feet			1.5/2	HPU	W/S		-	-	
4	Saturated at 3.5 feet									
5	SILTY CLAY (CL)			1.5/2	HPU	S/M		-	-	
6	Gray, moist, some medium to coarse sand, cohesive, soft			1.5/2	HPU	M		-	-	
8	End of Boring at 8.0 Feet									GW for Total Lead
10										
12										
14										
16										
18										
20										



BORING NO: B-31		PROJECT NO: 15-04183.00-004		PROJECT NAME: Sipi Metals			
BORING LOCATION: Adjacent to B-4				COORDINATES:			
DRILLING CO: CS Drilling			DRILLER: A. Mendez				
DRILLING EQUIP: Dingo 420			BOREHOLE DIA: 2"				
START DATE: 9/29/04		FINISH DATE: 9/29/04		LOGGED BY: D. Lamsma			
START TIME (hours): 0900		FINISH TIME (hours): 1350		CHECKED BY: M. Germann			

DEPTH	DESCRIPTION	GRAPHIC	SAMPLES					PID		REMARKS
			NUMBER	RECOVERY	METHOD	MOISTURE	BLOW CNT (6")	SCAN	HEADSPACE	
0	CONCRETE									
1	FILL Sand, dark brown, moist, fine to medium grained, some silt and gravel			2/2	HPU	M		1.9	6.4	PCBs, SVOCs, Target Metals, pH
2				2/2	HPU	M		4.3	4.1	
4	Wet at 4.0 feet			2/2	HPU	W		-	-	
6	SILTY CLAY (CL) Gray, brown, moist, some medium to coarse sand, trace fine gravel, soft			2/2	HPU	M		54.9	586	VOCs, PCBs, SVOCs, Target Metals, pH
8				2/2	HPU	M		72.8	455	
10				2/2	HPU	M		22.5	64.3	
12	End of Boring at 12.0 Feet									VOCs



BORING NO: B-32		PROJECT NO: 15-04183.00-004		PROJECT NAME: Sipl Metals					
BORING LOCATION: Forklift ramp				COORDINATES:					
DRILLING CO: CS Drilling				DRILLER: A. Mendez					
DRILLING EQUIP: Dingo 420				BOREHOLE DIA: 2"					
START DATE: 9/29/04		FINISH DATE: 9/29/04				LOGGED BY: D. Lamama			
START TIME (hours): 0957		FINISH TIME (hours): 1000				CHECKED BY: M. Germann			

DEPTH	DESCRIPTION	GRAPHIC	SAMPLES					PID		REMARKS
			NUMBER	RECOVERY	METHOD	MOISTURE	BLOW CNT (6")	SCAN	HEADSPACE	
0	CONCRETE									PNAs, PCBs, Total Arsenic, TCLP Lead
1	FILL Sand, tan, moist, fine to medium grained Grades dark brown, with silt and gravel at 1.0 foot			2/2	HPU	M		1.7	9.8	
2				2/2	HPU	M		2.7	35.7	
4	End of Boring at 4.0 Feet									
6										
8										
10										
12										
14										
16										
18										
20										



BORING NO: B-33		PROJECT NO: 15-04183.00-004		PROJECT NAME: Sipi Metals						
BORING LOCATION: In truck docks/receiving				COORDINATES:						
DRILLING CO: CS Drilling				DRILLER: A. Mendez						
DRILLING EQUIP: Dingo 420				BOREHOLE DIA: 2"						
START DATE: 9/29/04		FINISH DATE: 9/29/04				LOGGED BY: D. Lamsma				
START TIME (hours): 0944		FINISH TIME (hours): 0948				CHECKED BY: M. Germann				
DEPTH	DESCRIPTION	GRAPHIC	SAMPLES					PID		REMARKS
			NUMBER	RECOVERY	METHOD	MOISTURE	BLOW CNT (6")	SCAN	HEADSPACE	
0	CONCRETE									
1	FILL Sand, black, moist, fine to medium grained, some silt and gravel			2/2	HPU	M		11.3	24.5	
2	SILTY CLAY (CL) Gray, brown, moist, some medium to coarse sand, cohesive, soft			2/2	HPU	M		4.4	9.1	PNAs, PCBs, Total Arsenic, TCLP Lead
4	End of Boring at 4.0 Feet									
6										
8										
10										
12										
14										
16										
18										
20										



BORING NO: B-34		PROJECT NO: 15-04183.00-004		PROJECT NAME: Sipi Metals			
BORING LOCATION: Forklift ramp				COORDINATES:			
DRILLING CO: CS Drilling			DRILLER: A. Mendez				
DRILLING EQUIP: Dingo 420			BOREHOLE DIA: 2"				
START DATE: 9/29/04		FINISH DATE: 9/29/04		LOGGED BY: D. Lamsma			
START TIME (hours): 0833		FINISH TIME (hours): 0845		CHECKED BY: M. Germann			

DEPTH	DESCRIPTION	GRAPHIC	SAMPLES					PID		REMARKS
			NUMBER	RECOVERY	METHOD	MOISTURE	BLOW CNT (6")	SCAN	HEADSPACE	
0 ft m	CONCRETE									
2	FILL Sand, dark brown, black, moist, fine to medium grained, some silt and gravel			2/2	HPU	M		1.0	7.4	SVOCs, PCBs, Target Metals, TCLP Lead
4				2/2	HPU	M		1.7	15.9	
6	Saturated at 5.0 feet			1.5/2	HPU	M/S		-	-	
8	SILTY CLAY (CL) Gray, brown, moist, some medium to coarse sand			1.5/2	HPU	M		1.1	5.3	
10	End of Boring at 8.0 Feet									
12										
14										
16										
18										
20										



BORING NO: B-35		PROJECT NO: 15-04183.00-004		PROJECT NAME: Sipi Metals					
BORING LOCATION: Southeast of DJ press				COORDINATES:					
DRILLING CO: CS Drilling				DRILLER: A. Mendez					
DRILLING EQUIP: Dingo 420				BOREHOLE DIA: 2"					
START DATE: 9/28/04		FINISH DATE: 9/28/04				LOGGED BY: S.Peterson			
START TIME (hours): 1545		FINISH TIME (hours): 1558				CHECKED BY: M. Germann			

DEPTH	DESCRIPTION	GRAPHIC	SAMPLES					PID		REMARKS
			NUMBER	RECOVERY	METHOD	MOISTURE	BLOW CNT (6")	SCAN	HEADSPACE	
0	CONCRETE									
1	FILL Silty clay, gray, brown, moist, some medium to coarse sand and medium to coarse gravel			2/2	HPU	M		0	0	
2	Grades dark brown at 3.5 feet			2/2	HPU	M		0	0	PCBs
4	End of Boring at 4.0 Feet									
6										
8										
10										
12										
14										
16										
18										
20										



BORING NO: B-36		PROJECT NO: 15-04183.00-004		PROJECT NAME: Sipi Metals						
BORING LOCATION: Northeast of DJ press				COORDINATES:						
DRILLING CO: CS Drilling				DRILLER: A. Mendez						
DRILLING EQUIP: Dingo 420				BOREHOLE DIA: 2"						
START DATE: 9/28/04		FINISH DATE: 9/28/04				LOGGED BY: S. Peterson				
START TIME (hours): 1440		FINISH TIME (hours): 1535				CHECKED BY: M. Germann				
DEPTH	DESCRIPTION	GRAPHIC	SAMPLES					PID		REMARKS
			NUMBER	RECOVERY	METHOD	MOISTURE	BLOW CNT (6")	SCAN	HEADSPACE	
0 ft 0 m	CONCRETE									Total Arsenic, Total Lead
2	FILL Sand, brown, black, moist, fine to medium grained, some gravel, brick fragments			1/2	HPU	M		0	0	
4	Grades to silty sand at 4.0 feet			1/2	HPU	M		0	0	
6	End of Boring at 6.0 Feet			2/2	HPU	M		0	0	
8										
10										
12										
14										
16										
18										
20										



BORING NO: B-37		PROJECT NO: 15-04183.00-004		PROJECT NAME: Sipi Metals						
BORING LOCATION: South of DJ press				COORDINATES:						
DRILLING CO: CS Drilling				DRILLER: A. Mendez						
DRILLING EQUIP: Dingo 420				BOREHOLE DIA: 2"						
START DATE: 9/28/04		FINISH DATE: 9/28/04				LOGGED BY: D. Lamsma				
START TIME (hours): 1316		FINISH TIME (hours): 1350				CHECKED BY: M. Germann				
DEPTH	DESCRIPTION	GRAPHIC	SAMPLES					PID		REMARKS
			NUMBER	RECOVERY	METHOD	MOISTURE	BLOW CNT (6")	SCAN	HEADSPACE	
0	CONCRETE									
1	FILL Sand, dark brown, moist, fine to medium grained, some gravel		1.7/2	HPU	M		0	0		
2			1.7/2	HPU	M		2.8	3.9		
3			2/2	HPU	S		0	8.5		
4	Saturated at 5.5 feet									
5	End of boring at 6.0 Feet									
6										
7										
8										
9										
10										
11										
12										
13										
14										
15										
16										
17										
18										
19										
20										



BORING NO: B-38		PROJECT NO: 15-04183.00-004		PROJECT NAME: Sipi Metals					
BORING LOCATION: Adjacent to B-5				COORDINATES:					
DRILLING CO: CS Drilling				DRILLER: A. Mendez					
DRILLING EQUIP: Dingo 420				BOREHOLE DIA: 2"					
START DATE: 9/29/04		FINISH DATE: 9/29/04			LOGGED BY: S. Peterson				
START TIME (hours): 0810		FINISH TIME (hours): 1045			CHECKED BY: M. Germann				

DEPTH	DESCRIPTION	GRAPHIC	SAMPLES					PID		REMARKS
			NUMBER	RECOVERY	METHOD	MOISTURE	BLOW CNT (6")	SCAN	HEADSPACE	
0	CONCRETE									
1	FILL Sand, dark brown, moist, fine to medium grained, some silt and fine to medium gravel			2/2	HPU	M		0.7	5.2	
2				2/2	HPU	M		11.6	8.9	
3				1.5/2	HPU	M		2.5	3.1	
4	Wet at 6.0 Feet			1.5/2	HPU	W		-	-	
5	SILTY CLAY (CL) Gray, brown, moist, some medium to coarse sand, cohesive			2/2	HPU	M		1.4	4.9	SVOCs, Target Metals, pH
6				2/2	HPU	M		2.2	2.6	SVOCs, Target Metals, pH
7	End of Boring at 12.0 Feet									



BORING NO: B-39		PROJECT NO: 15-04183.00-004		PROJECT NAME: Sipi Metals			
BORING LOCATION: Near abandoned 9000 gallon UST				COORDINATES:			
DRILLING CO: CS Drilling			DRILLER: A. Mendez				
DRILLING EQUIP: Dingo 420			BOREHOLE DIA: 2"				
START DATE: 9/28/04		FINISH DATE: 9/28/04		LOGGED BY: D. Lamsma			
START TIME (hours): 1118		FINISH TIME (hours): 1300		CHECKED BY: M. Germann			

DEPTH	DESCRIPTION	GRAPHIC	SAMPLES					PID		REMARKS
			NUMBER	RECOVERY	METHOD	MOISTURE	BLOW CNT (6")	SCAN	HEADSPACE	
0	CONCRETE									
2	FILL Sand, dark brown, moist, some silty clay and gravel, brick fragments			1.5/2	HPU	M		0	0	Naphthalene, Total Lead
4	Saturated at 4.0 feet			1.5/2	HPU	M		0	0	
6				1.5/2	HPU	S		-	-	
8	SILTY CLAY (CL) Gray, moist, some medium to coarse sand, soft			1.5/2	HPU	M		-	-	
10				2/2	HPU	M		-	-	TPH
12	End of Boring at 10.0 Feet									
14										
16										
18										
20										



BORING NO: B-40		PROJECT NO: 15-04183.00-004		PROJECT NAME: Sipi Metals			
BORING LOCATION: East of Taylor Baghouse				COORDINATES:			
DRILLING CO: CS Drilling			DRILLER: A. Mendez				
DRILLING EQUIP: Dingo 420			BOREHOLE DIA: 2"				
START DATE: 9/30/04		FINISH DATE: 9/30/04			LOGGED BY: S. Peterson		
START TIME (hours): 0750		FINISH TIME (hours): 0755			CHECKED BY: M. Germann		

DEPTH	DESCRIPTION	GRAPHIC	SAMPLES					PID		REMARKS
			NUMBER	RECOVERY	METHOD	MOISTURE	BLOW CNT (6")	SCAN	HEADSPACE	
0	ASPHALT									Naphthalene, Total Lead
1	FILL Sand, dark brown, moist, fine to medium grained, some silt and gravel			2/2	HPU	M		80.2	16.2	
3	SILTY CLAY (CL) Gray, moist, some fine sand and gravel			2/2	HPU	M		9	5.6	
4	End of Boring at 4.0 Feet									



BORING NO: B-41		PROJECT NO: 15-04183.00-004		PROJECT NAME: Sipl Metals					
BORING LOCATION: South of compressor room				COORDINATES:					
DRILLING CO: CS Drilling				DRILLER: A. Mendez					
DRILLING EQUIP: Dingo 420				BOREHOLE DIA: 2"					
START DATE: 9/29/04		FINISH DATE: 9/29/04				LOGGED BY: S. Peterson			
START TIME (hours): 1313		FINISH TIME (hours): 1325				CHECKED BY: M. Germann			

DEPTH	DESCRIPTION	GRAPHIC	SAMPLES					PID		REMARKS
			NUMBER	RECOVERY	METHOD	MOISTURE	BLOW CNT (5")	SCAN	HEADSPACE	
0	CONCRETE									Naphthalene, Total Lead
2	FILL Sand, brown, dry, fine to medium grained, some silt and gravel			0.8/2	HPU	D		19.2	4.4	
				0.8/1	HPU	D		-	-	
4	Refusal at 3.0 Feet									
6										
8										
10										
12										
14										
16										
18										
20										



BORING NO: B-42		PROJECT NO: 15-04183.00-004		PROJECT NAME: Sipi Metals					
BORING LOCATION: West of compressor room				COORDINATES:					
DRILLING CO: CS Drilling				DRILLER: A. Mendez					
DRILLING EQUIP: Dingo 420				BOREHOLE DIA: 2"					
START DATE: 9/29/04		FINISH DATE: 9/29/04			LOGGED BY: S. Peterson				
START TIME (hours): 1410		FINISH TIME (hours): 1432			CHECKED BY: M. Germann				

DEPTH	DESCRIPTION	GRAPHIC	SAMPLES					PID		REMARKS
			NUMBER	RECOVERY	METHOD	MOISTURE	BLOW CNT (5")	SCAN	HEADSPACE	
0	CONCRETE									
1	FILL Sand, brown, moist, fine to medium grained, some silt and gravel			1/2	HPU	M		7.3	3.8	
2				1/2	HPU	M		8.2	90	
3	FILL Silty clay, brown, wet, some fine sand and gravel			2/2	HPU	W		-	-	
4				2/2	HPU	M		18	3.2	
5	SILTY CLAY (CL) Light gray, brown, moist, some fine sand and fine gravel, stiff			2/2	HPU	M		17.5	-	BTEX, SVOCs, Target Metals, pH
6				2/2	HPU	M		18	3.5	BTEX, SVOCs, Target Metals, pH
7	End of Boring at 12.0 Feet									
8										
9										
10										
11										
12										
13										
14										
15										
16										
17										
18										
19										
20										



BORING NO: B-43		PROJECT NO: 15-04183.00-004		PROJECT NAME: Sipi Metals			
BORING LOCATION: South of casting ring				COORDINATES:			
DRILLING CO: CS Drilling			DRILLER: A. Mendez				
DRILLING EQUIP: Jackhammer Geoprobe			BOREHOLE DIA: 2"				
START DATE: 9/30/04		FINISH DATE: 9/30/04			LOGGED BY: S. Peterson		
START TIME (hours): 1159		FINISH TIME (hours): 1204			CHECKED BY: M. Germann		

DEPTH	DESCRIPTION	GRAPHIC	SAMPLES					PID		REMARKS
			NUMBER	RECOVERY	METHOD	MOISTURE	BLOW CNT (6")	SCAN	HEADSPACE	
0	CONCRETE									
2	FILL Sand, brown, moist, medium to coarse grained, some silt and gravel			1.5/2	HPU	M		10.7	-	PNAs, TCLP Lead
4				1.5/2	HPU	M		3.8	-	
4	End of Boring at 4.0 Feet									



BORING NO: B-44		PROJECT NO: 15-04183.00-004		PROJECT NAME: Sipi Metals			
BORING LOCATION: In courtyard				COORDINATES:			
DRILLING CO: CS Drilling			DRILLER: A. Mendez				
DRILLING EQUIP: Dingo 420			BOREHOLE DIA: 2"				
START DATE: 9/29/04		FINISH DATE: 9/29/04		LOGGED BY: S. Peterson			
START TIME (hours): 1532		FINISH TIME (hours): 1537		CHECKED BY: M. Germann			

DEPTH	DESCRIPTION	GRAPHIC	SAMPLES					PID		REMARKS
			NUMBER	RECOVERY	METHOD	MOISTURE	BLOW/CNT (6")	SCAN	HEADSPACE	
0	CONCRETE									TCLP Lead
1	FILL Sand, reddish brown, moist, fine to medium grained, some silt and gravel Grades dark brown, saturated at 2.0 feet			1.5/2	HPU	M		2.6	6	
2				1.5/2	HPU	S		-	-	
4	End of Boring at 4.0 Feet									
6										
8										
10										
12										
14										
16										
18										
20										



BORING NO: B-45		PROJECT NO: 15-04183.00-004				PROJECT NAME: Sipi Metals				
BORING LOCATION: Inside casting ring						COORDINATES:				
DRILLING CO: CS Drilling					DRILLER: A. Mendez					
DRILLING EQUIP: Jackhammer Geoprobe					BOREHOLE DIA: 2"					
START DATE: 9/30/04			FINISH DATE: 9/30/04			LOGGED BY: S. Peterson				
START TIME (hours): 1427			FINISH TIME (hours): 1438			CHECKED BY: M. Germann				
DEPTH	DESCRIPTION	GRAPHIC	SAMPLES					PID		REMARKS
			NUMBER	RECOVERY	METHOD	MOISTURE	BLOW CNT (6")	SCAN	HEADSPACE	
0	CONCRETE									TCLP Lead
0	FILL Sand, gravel, brown, moist, medium to coarse grained, some silt			2/2	HPU	M		16.8	22.2	
2	End of Boring at 2.0 Feet									
4										
6										
8										
10										
12										
14										
16										
18										
20										



BORING NO: B-46		PROJECT NO: 15-04183.00-004		PROJECT NAME: Sip Metals			
BORING LOCATION: Adjacent to B-7				COORDINATES:			
DRILLING CO: CS Drilling			DRILLER: A. Mendez				
DRILLING EQUIP: Jackhammer Geoprobe			BOREHOLE DIA: 2"				
START DATE: 9/30/04		FINISH DATE: 9/30/04		LOGGED BY: S. Peterson			
START TIME (hours): 1343		FINISH TIME (hours): 1414		CHECKED BY: M. Germann			

DEPTH	DESCRIPTION	GRAPHIC	SAMPLES					PID		REMARKS
			NUMBER	RECOVERY	METHOD	MOISTURE	BLOW CNT (6")	SCAN	HEADSPACE	
0	CONCRETE									
1	FILL			1.2/2	HPU	M		0	16.6	
2	Sand, gravel, brown, moist, medium to coarse grained, some silt			1.2/2	HPU	M		10.8	18.2	
4	Wet at 4.0 feet									
5	CLAYEY SILT (ML)			2/2	HPU	W/M		--	--	
6	Black, moist, some fine gravel									
7	SILTY CLAY (CL)			2/2	HPU	M		16.6	20.4	
8	Gray, moist, some medium to coarse sand and fine gravel			2/2	HPU	M		--	--	SVOCs, Target Metals, pH, TCLP Lead
10	End of Boring at 10.0 Feet									SVOCs, Target Metals, pH, TCLP Lead
12										
14										
16										
18										
20										



BORING NO: B-47		PROJECT NO: 15-04183.00-004		PROJECT NAME: Sipi Metals					
BORING LOCATION: North of acid area				COORDINATES:					
DRILLING CO: GS Drilling				DRILLER: A. Mendez					
DRILLING EQUIP: Dingo 420				BOREHOLE DIA: 2"					
START DATE: 9/30/04		FINISH DATE: 9/30/04				LOGGED BY: S. Peterson			
START TIME (hours): 1315		FINISH TIME (hours): 1317				CHECKED BY: M. Germann			

DEPTH	DESCRIPTION	GRAPHIC	SAMPLES					PID		REMARKS
			NUMBER	RECOVERY	METHOD	MOISTURE	BLOW CNT (6")	SCAN	HEADSPACE	
0	CONCRETE									
0	FILL Silty sand, brown, moist, fine to medium sand, some fine gravel			1.7/2	HPU	M		16.9	17.6	
2				1.7/2	HPU	M		1.1	15.8	BTEX, TCLP Lead
4	SILTY CLAY (CL) Gray, moist, some fine to medium sand									
4	End of Boring at 4.0 Feet									
6										
8										
10										
12										
14										
16										
18										
20										






BORING NO: B-48		PROJECT NO: 15-04183.00-004		PROJECT NAME: Sipi Metals			
BORING LOCATION: Outside southwest corner of building				COORDINATES:			
DRILLING CO: CS Drilling			DRILLER: A. Mendez				
DRILLING EQUIP: Dingo 420			BOREHOLE DIA: 2"				
START DATE: 9/29/04		FINISH DATE: 9/29/04			LOGGED BY: D. Lamsma		
START TIME (hours): 0730		FINISH TIME (hours): 0735			CHECKED BY: M. Germann		

DEPTH	DESCRIPTION	GRAPHIC	SAMPLES					PID		REMARKS
			NUMBER	RECOVERY	METHOD	MOISTURE	BLOW CNT (6")	SCAN	HEADSPACE	
0	ASPHALT									
1	FILL Gravel, gray, moist, some sand			1.5/2	HPU	M		1.8	7.5	
2	FILL Sand, tan, moist, fine to medium grained			1.5/2	HPU	M/W		3.3	16.7	
3	Grades to silty clay, dark brown, some sand at 3.0 feet									
4	Wet at 3.7 feet									
4.0	End of Boring at 4.0 Feet									
6										
8										
10										
12										
14										
16										
18										
20										



BORING NO: B-49		PROJECT NO: 15-04183.00-004		PROJECT NAME: Sipi Metals					
BORING LOCATION: In street, west of building				COORDINATES:					
DRILLING CO: CS Drilling				DRILLER: A. Mendez					
DRILLING EQUIP: Dingo 420				BOREHOLE DIA: 2"					
START DATE: 9/30/04		FINISH DATE: 9/30/04				LOGGED BY: S. Peterson			
START TIME (hours): 1120		FINISH TIME (hours): 1124				CHECKED BY: M. Germann			

DEPTH	DESCRIPTION	GRAPHIC	SAMPLES					PID		REMARKS
			NUMBER	RECOVERY	METHOD	MOISTURE	BLOW CNT (6")	SCAN	HEADSPACE	
0	ASPHALT									
1	FILL Gravel, gray, moist, medium to coarse grained			1.5/2	HPU	M		0.4	14.3	
2	FILL Sand, black, moist, medium to coarse grained, some silt and gravel			1.5/2	HPU	M		14.6	17.2	BTEX, Total Lead
4	End of Boring at 4.0 Feet									
6										
8										
10										
12										
14										
16										
18										
20										



BORING NO: B-50		PROJECT NO: 15-04183.00-004		PROJECT NAME: Sipi Metals			
BORING LOCATION: In north parking lot				COORDINATES:			
DRILLING CO: CS Drilling			DRILLER: A. Mendez				
DRILLING EQUIP: Dingo 420			BOREHOLE DIA: 2"				
START DATE: 9/28/04		FINISH DATE: 9/28/04		LOGGED BY: D. Lamsma			
START TIME (hours): 0823		FINISH TIME (hours): 0840		CHECKED BY: M. Germann			

DEPTH	DESCRIPTION	GRAPHIC	SAMPLES					PID		REMARKS
			NUMBER	RECOVERY	METHOD	MOISTURE	BLOW CNT (6")	SCAN	HEADSPACE	
0	ASPHALT									
1	FILL Gravel, gray, moist, some sand			2/2	HPU	M		58.9	63.2	
2	FILL Sand, dark brown/black, moist, some silt and gravel			2/2	HPU	M		33.7	9.1	
4	PEAT (PT) Black, moist, some sand, slight odor, organics			2/2	HPU	M		23.4	102	TPH
6										
8	SILTY CLAY (CL) Gray, brown, moist, some medium to coarse sand, cohesive			2/2	HPU	M		16.3	31.4	
10				2/2	HPU	M		80.6	46.4	
12	End of Boring at 10.0 Feet									
14										
16										
18										
20										



BORING NO: B-51		PROJECT NO: 15-04183.00-004		PROJECT NAME: Sipi Metals					
BORING LOCATION: In north parking lot				COORDINATES:					
DRILLING CO: CS Drilling				DRILLER: A. Mendez					
DRILLING EQUIP: Dingo 420				BOREHOLE DIA: 2"					
START DATE: 9/28/04		FINISH DATE: 9/28/04			LOGGED BY: D. Lamsma				
START TIME (hours): 0735		FINISH TIME (hours): 0812			CHECKED BY: M. Germann				

DEPTH	DESCRIPTION	GRAPHIC	SAMPLES					PID		REMARKS
			NUMBER	RECOVERY	METHOD	MOISTURE	BLOW CNT (6")	SCAN	HEADSPACE	
0	ASPHALT									
0.4	FILL Gravel, gray, moist, some sand			2/2	HPU	M		0	0.4	TPH
2	FILL Sand, dark brown, black, moist, some silt and fine gravel			2/2	HPU	M		0	43.8	
4	PEAT (PT) Black, moist, with silt, organics			2/2	HPU	M		0	3	
6	SILTY CLAY (CL) Gray, brown, moist, some medium to coarse sand and fine gravel			2/2	HPU	M		0	2.1	
8				2/2	HPU	M		0	1.7	
10	End of Boring at 10.0 Feet									
12										
14										
16										
18										
20										



BORING NO: B-52		PROJECT NO: 15-04183.00-004		PROJECT NAME: Sipi Metals					
BORING LOCATION: Adjacent to B-13				COORDINATES:					
DRILLING CO: CS Drilling				DRILLER: A. Mendez					
DRILLING EQUIP: Dingo 420				BOREHOLE DIA: 2"					
START DATE: 9/30/04		FINISH DATE: 9/30/04			LOGGED BY: S. Peterson				
START TIME (hours): 0728		FINISH TIME (hours): 0733			CHECKED BY: M. Germann				

DEPTH	DESCRIPTION	GRAPHIC	SAMPLES					PID		REMARKS
			NUMBER	RECOVERY	METHOD	MOISTURE	BLOW CNT (6")	SCAN	HEADSPACE	
0	ASPHALT									Total Lead
1	FILL Sand, gray, moist, fine to medium grained, some gravel			2/2	HPU	M		1.5	5.7	
2				2/2	HPU	M		1.1	4	
3	SILTY CLAY (CL) Gray, moist, some fine to medium sand and fine gravel									
4	End of Boring at 4.0 Feet									
6										
8										
10										
12										
14										
16										
18										
20										



BORING NO: B-53		PROJECT NO: 15-04183.00-004		PROJECT NAME: Sipi Metals					
BORING LOCATION: Outside fence, southwest of MW-1				COORDINATES:					
DRILLING CO: CS Drilling				DRILLER: A. Mendez					
DRILLING EQUIP: Dingo 420				BOREHOLE DIA: 2"					
START DATE: 9/30/04		FINISH DATE: 9/30/04				LOGGED BY: D. Lamsma			
START TIME (hours): 1010		FINISH TIME (hours): 1020				CHECKED BY: M. Germann			

DEPTH	DESCRIPTION	GRAPHIC	SAMPLES					PID		REMARKS
			NUMBER	RECOVERY	METHOD	MOISTURE	BLOW CNT (6")	SCAN	HEADSPACE	
0	FILL									
0	Sand, dark brown, moist, fine to medium grained, some gravel, trace silt			1.5/2	HPU	M		2	8.5	
2	Grades tan at 2.5 feet			1.5/2	HPU	M		10	6.9	
4	Wet at 4.0 feet			1.2/2	HPU	W		11.9	4.4	Target Metals, pH
6	Grades dark brown, saturated at 6.5 feet			1.2/2	HPU	S/M		-	-	
8	SILTY CLAY (CL) Gray, moist, some medium to coarse sand, cohesive			1.5/2	HPU	M		8	5.2	
10				1.5/2	HPU	M		4.3	4.3	Target Metals, pH
12	End of Boring at 12.0 Feet									



BORING NO: B-54		PROJECT NO: 15-04183.00-004		PROJECT NAME: Slpi Metals			
BORING LOCATION: North of propane storage area				COORDINATES:			
DRILLING CO: CS Drilling			DRILLER: A. Mendez				
DRILLING EQUIP: Dingo 420			BOREHOLE DIA: 2"				
START DATE: 9/29/04		FINISH DATE: 9/29/04		LOGGED BY: S. Peterson			
START TIME (hours): 1555		FINISH TIME (hours): 1623		CHECKED BY: M. Germann			

DEPTH	DESCRIPTION	GRAPHIC	SAMPLES					PID		REMARKS
			NUMBER	RECOVERY	METHOD	MOISTURE	BLOW CNT (6")	SCAN	HEADSPACE	
0	ASPHALT									
1	FILL Sand, black, moist, fine to medium grained, some silt and gravel, brick fragments			2/2	HPU	M		2.9	6.3	
2				2/2	HPU	M		6.7	8.9	
3	SILTY CLAY (CL) Light brown, gray, moist, some fine sand and gravel			2/2	HPU	M		12.2	9.1	TPH
4				2/2	HPU	M		14.8	7.3	
5				2/2	HPU	M		3.8	6.3	
10	End of Boring at 10.0 Feet									



BORING NO: B-55		PROJECT NO: 15-04183,00-004		PROJECT NAME: Sipl Metals	
BORING LOCATION: Adjacent to MW-4				COORDINATES:	
DRILLING CO: GS Drilling			DRILLER: A. Mendez		
DRILLING EQUIP: Dingo 420			BOREHOLE DIA: 2"		
START DATE: 9/30/04		FINISH DATE: 9/30/04		LOGGED BY: S. Peterson	
START TIME (hours): 1055		FINISH TIME (hours): 1102		CHECKED BY: M. Germann	

DEPTH	DESCRIPTION	GRAPHIC	SAMPLES					PID		REMARKS
			NUMBER	RECOVERY	METHOD	MOISTURE	BLOW CNT (6")	SCAN	HEADSPACE	
0	ASPHALT									SVOCs, Target Metals, pH
1	FILL Sand, black, moist, medium to coarse grained, some gravel			2/2	HPU	M		0.2	14.1	
2				2/2	HPU	M		0.8	13.9	
3	SILTY CLAY (CL) Gray, moist, some medium to coarse sand and fine gravel									
4	End of Boring at 4.0 Feet									
6										
8										
10										
12										
14										
16										
18										
20										



BORING NO: B-56		PROJECT NO: 15-04183.00-004		PROJECT NAME: Sipi Metals					
BORING LOCATION: Adjacent to B-20				COORDINATES:					
DRILLING CO: CS Drilling				DRILLER: A. Mendez					
DRILLING EQUIP: Dingo 420				BOREHOLE DIA: 2"					
START DATE: 9/30/04		FINISH DATE: 9/30/04			LOGGED BY: S. Peterson				
START TIME (hours): 1033		FINISH TIME (hours): 1034			CHECKED BY: M. Germann				

DEPTH	DESCRIPTION	GRAPHIC	SAMPLES					PID		REMARKS
			NUMBER	RECOVERY	METHOD	MOISTURE	BLOW CNT (6")	SCAN	HEADSPACE	
0	FILL Gravel, gray, moist			2/2	HPU	M		5	6.8	Total Lead
2	FILL Sand and gravel, gray, moist, medium to coarse sand, some silt, wood chips Grades black at 2.0 feet Clayey silt seam, gray, moist from 3.0 to 3.4 feet			2/2	HPU	M		14.5	5.3	
4	End of Boring at 4.0 Feet									
6										
8										
10										
12										
14										
16										
18										
20										



BORING NO: B-57		PROJECT NO: 15-04183.00-004		PROJECT NAME: Sipl Metals						
BORING LOCATION: West of retention pond				COORDINATES:						
DRILLING CO: CS Drilling				DRILLER: A. Mendez						
DRILLING EQUIP: Dingo 420				BOREHOLE DIA: 2"						
START DATE: 9/30/04		FINISH DATE: 9/30/04			LOGGED BY: S. Peterson					
START TIME (hours): 1042		FINISH TIME (hours): 1045			CHECKED BY: M. Germann					
DEPTH	DESCRIPTION	GRAPHIC	SAMPLES					PID		REMARKS
			NUMBER	RECOVERY	METHOD	MOISTURE	BLOW CNT (6")	SCAN	HEADSPACE	
0 ft	FILL									Total Lead
0	Gravel, gray, moist			2/2	HPU	M		1	3.3	
2	FILL			2/2	HPU	M/W		4.3	4.5	
2	Sand, black, moist, medium to coarse grained, some gravel									
4	Wet at 3.5 feet									
4	End of Boring at 4.0 Feet									
6										
8										
10										
12										
14										
16										
18										
20										



BORING NO: B-58		PROJECT NO: 15-04183.00-004		PROJECT NAME: Sipl Metals						
BORING LOCATION: Adjacent to B-19				COORDINATES:						
DRILLING CO: CS Drilling				DRILLER: A. Mendez						
DRILLING EQUIP: Dingo 420				BOREHOLE DIA: 2"						
START DATE: 9/30/04		FINISH DATE: 9/30/04			LOGGED BY: D. Lamsma					
START TIME (hours): 1002		FINISH TIME (hours): 1004			CHECKED BY: M. Germann					
DEPTH	DESCRIPTION	GRAPHIC	SAMPLES					PID		REMARKS
			NUMBER	RECOVERY	METHOD	MOISTURE	BLOW CNT (6")	SCAN	HEADSPACE	
0	FILL Sand, dark brown, moist, fine to medium grained, some gravel									Total Lead
2			1/2	HPU	M		1.6	7.6		
4	End of Boring at 4.0 Feet		1/2	HPU	M		10.2	6.6		
6										
8										
10										
12										
14										
16										
18										
20										



BORING NO: B-59		PROJECT NO: 15-04183.00-004		PROJECT NAME: Sipi Metals	
BORING LOCATION: Forsyth Building				COORDINATES:	
DRILLING CO: CS Drilling			DRILLER: A. Mendez		
DRILLING EQUIP: Dingo 420			BOREHOLE DIA: 2"		
START DATE: 9/30/04		FINISH DATE: 9/30/04		LOGGED BY: S. Peterson	
START TIME (hours): 0828		FINISH TIME (hours): 0857		CHECKED BY: M. Germann	

DEPTH	DESCRIPTION	GRAPHIC	SAMPLES					PID		REMARKS
			NUMBER	RECOVERY	METHOD	MOISTURE	BLOW CNT (6")	SCAN	HEADSPACE	
0	CONCRETE									
0	FILL Sand, gravel, black, moist, fine to medium sand, some silt, brick fragments Grades gray at 1.5 feet			2/2	HPU	M		15.2	4.4	
2				2/2	HPU	M		19.4	5.7	
4	Asphalt pieces from 5.0 to 6.0 feet Grades dark brown at 6.5 feet			2/2	HPU	M		20.5	5.9	
6				2/2	HPU	M		19.7	3.7	
8	SILTY CLAY (CL) Gray, moist, some fine sand and fine gravel			2/2	HPU	M		10.3	3.4	
10				2/2	HPU	M		19.3	5.2	
12				2/2	HPU	M		8.4	6.5	PNAs, Total Lead
14				2/2	HPU	M		7.3	5.1	PNAs, Total Lead
16	End of Boring at 16.0 Feet									
18										
20										



BORING NO: B-60		PROJECT NO: 15-04183.00-004		PROJECT NAME: Sipi Metals					
BORING LOCATION: Forsyth Building				COORDINATES:					
DRILLING CO: CS Drilling				DRILLER: A. Mendez					
DRILLING EQUIP: Dingo 420				BOREHOLE DIA: 2"					
START DATE: 9/30/04		FINISH DATE: 9/30/04			LOGGED BY: S. Peterson				
START TIME (hours): 0917		FINISH TIME (hours): 0932			CHECKED BY: M. Germann				

DEPTH	DESCRIPTION	GRAPHIC	SAMPLES					PID		REMARKS
			NUMBER	RECOVERY	METHOD	MOISTURE	BLOW CNT (6")	SCAN	HEADSPACE	
0	CONCRETE									
2	FILL Sand, gray, moist, fine to medium grained, some silt and gravel, brick fragments Grades black at 2.0 feet			2/2	HPU	M		23.8	7.5	
4	Asphalt pieces from 4.0 to 6.0 feet			2/2	HPU	M		20.4	6.3	
6	End of Boring at 6.0 Feet			2/2	HPU	M		20.1	4	PNA's, Total Lead



BORING NO: B-61		PROJECT NO: 15-04183.00-004		PROJECT NAME: Sipl Metals						
BORING LOCATION: Forsyth Building				COORDINATES:						
DRILLING CO: CS Drilling				DRILLER: A. Mendez						
DRILLING EQUIP: Dingo 420				BOREHOLE DIA: 2"						
START DATE: 9/30/04		FINISH DATE: 9/30/04				LOGGED BY: D. Lamama				
START TIME (hours): 0904		FINISH TIME (hours): 0913				CHECKED BY: M. Germann				
DEPTH	DESCRIPTION	GRAPHIC	SAMPLES					PID		REMARKS
			NUMBER	RECOVERY	METHOD	MOISTURE	BLOW CNT (6")	SCAN	HEADSPACE	
0	CONCRETE									
2	FILL Sand, gravel, gray, moist, fine to medium grained, some silt, brick fragments			2/2	HPU	M		18.4	5.3	
4	Grades dark brown at 3.5 feet			2/2	HPU	M		18.1	5.7	
6				2/2	HPU	M		6.2	4.9	PNAs, Total Lead
2	End of Boring at 6.0 Feet									
8										
10										
12										
14										
16										
18										
20										



BORING NO: B-62		PROJECT NO: 15-04183.00-004		PROJECT NAME: Sipi Metals					
BORING LOCATION: Adjacent to MW-5				COORDINATES:					
DRILLING CO: CS Drilling				DRILLER: A. Mendez					
DRILLING EQUIP: Dingo 420				BOREHOLE DIA: 2"					
START DATE: 9/29/04		FINISH DATE: 9/29/04		LOGGED BY: D. Lamsma					
START TIME (hours): 0750		FINISH TIME (hours): 0759		CHECKED BY: M. Germann					

DEPTH	DESCRIPTION	GRAPHIC	SAMPLES					PID		REMARKS
			NUMBER	RECOVERY	METHOD	MOISTURE	BLOW CNT (6")	SCAN	HEADSPACE	
0	ASPHALT									
0	FILL									
0	Sand, light brown, moist, some gravel			2/2	HPU	M		0	6.6	
2	Grades dark brown/black, some silt at 1.0 foot									
2	Silt and clay at 3.0 feet			2/2	HPU	M		1	5.5	PNAs
4	Saturated at 4.0 feet									
4				1.5/2	HPU	S/M		--	--	
6	SILTY CLAY (CL)									
6	Gray, brown, moist, some medium to coarse sand, cohesive			1.5/2	HPU	M		2	6.9	PNAs
8	End of Boring at 8.0 Feet									
10										
12										
14										
16										
18										
20										



## **APPENDIX E**

### **SEPTEMBER 24, 2004 LETTER FROM THE ILLINOIS EPA**



## ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

1021 NORTH GRAND AVENUE EAST, P.O. BOX 19276, SPRINGFIELD, ILLINOIS 62794-9276, 217-782-3397  
JAMES R. THOMPSON CENTER, 100 WEST RANDOLPH, SUITE 11-300, CHICAGO, IL 60601, 312-814-6026

ROD R. BLAGOJEVICH, GOVERNOR

RENEE CIPRIANO, DIRECTOR

217/785-8410

7002 3150 0000 1113 4499

September 24, 2004

Leslie S. Pinsof  
SiPi Metals Corporation  
1720 N. Elston Avenue  
Chicago, IL 60622

Refer to: 0316005887 - Cook County  
Chicago/SiPi Metals Corporation  
Site Remediation Program/Technical

Dear Mr. Pinsof:

The Illinois Environmental Protection Agency (Illinois EPA) has completed review of the Phase I Environmental Site Assessment (dated August 9, 2004) and the Phase II Environmental Investigation (dated September 14, 2004). Per our meeting on September 23, 2004 to discuss further site investigation and the review of the above referenced documents, the Illinois EPA has the following comments.

- 1) Please refer to 35 Illinois Administrative Code 620.210 for the definition of Class I groundwater. I believe the site groundwater would be classified as Class II because it does not meet the Class I requirement of being located 10 feet or more below the land surface and is not in contact with an underlying hydraulic zone.
- 2) The Target Compound List (TCL) semivolatile organics (SVOCs) and inorganics should be run at soil sampling locations in each Recognized Environmental Conditions (REC) area proposed for additional sampling. This is being requested to complete requirements for a comprehensive investigation. In addition, pH should be run in conjunction with the inorganic testing.
- 3) The vertical soil delineation needs to be determined in a few REC areas. This delineation will also help verify if the native silty clay geologic layer has been impacted by site contamination conditions.
- 4) Methyl Tertiary-butyl ether (MTBE) needs to be sampled for at any gasoline tank storage areas that had been in use since 1978.

- 5) A lead grab sample may be collected again at boring B-3 to verify past results. A filtered and un-filtered sample can be sent to the laboratory for analysis comparison.
- 6) The site boundary may be redefined at a later date to include the Howard Medical Building and Forsyth building area once ownership has been obtained and the investigation in this area has been completed.
- 7) The use of a Soil Management Zone (SMZ) to move around contaminated soil from one contaminated area to another on-site contaminated area could be used in the future once a proposal outlining this is approved. No soil moving on-site is permitted with out an approved SMZ. Please refer to 35 Illinois Administrative Code 740.535 for requirements to establish SMZs.
- 8) The remediation site shall be identified by the Remediation Applicant ("RA") as that property, or portion of a property, where a No Further Remediation ("NFR") letter is requested.

The site investigation report shall include a map identifying all on-site and off-site injection wells and withdrawal wells (pursuant to 35 Illinois Administrative Code ("35 IAC") Part 740.425(b)(2)(D)(ii) and 740.435(b)(2)(C)(ii)) within at least 1,000 feet of the remediation site in accordance with 35 IAC 740.210(a)(7). Regulated recharge areas and modeled recharge areas must also be identified to determine if the extent of these areas exist within the 1,000-foot area surrounding the remediation site. This information shall be collected by the consultant, by contacting all of the following sources:

Illinois State Geological Survey;  
Illinois State Water Survey;  
Illinois EPA Division of Public Water Supply;  
Illinois Department of Public Health;  
County and Municipal Health Departments; and  
Local water supply entity (i.e., public water districts, public water supply companies).

The consultant may obtain the information through appropriate web sites, written inquiry or by telephone to identify potential water wells within the distances identified above. The consultant, shall submit a map with the locations of all on-site and off-site injection wells and withdrawal wells and regulated and modeled recharge areas within at least 1,000 feet of the remediation site (no less than one inch equals 200 feet), and a certification form that states all of the above sources have been contacted.

If the site investigation or remediation objectives report identifies that contamination has migrated off the remediation site or is predicted to travel off the remediation site, the consultant, shall provide a map identifying all the on-site

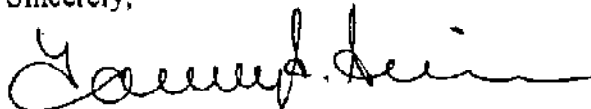
and off-site injection wells and withdrawal wells and regulated or modeled recharge areas within 1,000 feet of the most downgradient point of contamination. This information shall be collected by the consultant, by contacting all of the following sources:

Illinois State Geological Survey;  
Illinois State Water Survey;  
Illinois EPA Division of Public Water Supply;  
Illinois Department of Public Health;  
County and Municipal Health Departments; and  
Local water supply entity (i.e., public water districts, public water supply companies).

In addition to the above sources, a physical well survey may be required to positively identify any water wells. This physical survey will include, at a minimum, the placement of written information at properties within the measured or modeled distance of the groundwater plume.

The consultant shall submit a map with the locations of all on-site and off-site injection wells and withdrawal wells and recharge areas within at least 1,000 feet of the most downgradient point of contamination (no less than one inch equals 200 feet), and a certification form that states all of the above sources have been contacted.

Sincerely,



Tammy S. Smith  
Voluntary Site Remediation Unit  
Remedial Project Management Section  
Division of Remediation Management  
Bureau of Land

cc: Russell Chadwick  
Clayton Group Services  
3140 Finley Road  
Downers Grove, IL 60515



## **APPENDIX F**

### **LABORATORY ANALYTICAL RESULTS**



**First  
Environmental  
Laboratories, Inc.**

1600 Shore Road • Naperville, Illinois 60563 • Phone (630) 778-1200 • Fax (630) 778-1233  
IL ELAP / NELAC Accreditation # 100292

August 17, 2004

Ms. Marie Mueller  
**CLAYTON GROUP SERVICES INC.**  
3140 Finley Road  
Downers Grove, IL 60515

Project ID: 15-04183  
First Environmental File ID: 34321-28  
Date Received: August 10, 2004

Dear Ms. Mueller:

The above referenced project was analyzed as directed on the enclosed chain of custody record.

**PROJECT SUMMARY**

Analyses were performed in accordance with the methods found in the USEPA publication: Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW-846, 3<sup>rd</sup> Edition, December 1996. Specific method references are listed on the Analytical Report.

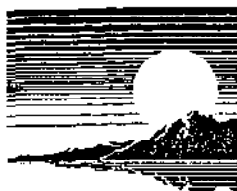
Results, except for TCLP analyses, have been expressed on a dry weight basis per method protocol.

All analyses were performed within established holding times, and all Quality Control criteria as outlined in the methods and current IL ELAP/NELAP have been met. QA/QC documentation will remain on file for future reference.

I thank you for the opportunity to be of service and look forward to working with you again in the future. Should you have any questions regarding any of the enclosed analytical data, please contact me at (630) 778-1200.

Sincerely,

William H. Mottashed  
Project Manager



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**Analytical Report**

Client: CLAYTON GROUP SERVICES  
Project ID: 15-04183  
Sample Number: 34321  
Sample Description: B-10A/4-6  
Lab File ID: 34321-28

Date Received: 08/10/04  
Date Taken: 08/09/04  
Time Taken: 8:34  
Date Reported: 08/18/04

Analyte	Result	Units	Flags
Solids, Total	86.55	%	

**BTEX Method 5035A/8260B**

Analysis Date: 08/16/04

Benzene	< 2.0	ug/kg
Toluene	< 5.0	ug/kg
Ethyl benzene	< 5.0	ug/kg
Xylenes (total)	< 5.0	ug/kg

**Polynuclear Aromatic Compounds Method 3540C/8270C**

Preparation Date: 08/12/04

Analysis Date: 08/15/04

Naphthalene	572	ug/kg
Acenaphthylene	< 50	ug/kg
Acenaphthene	818	ug/kg
Fluorene	1,130	ug/kg
Phenanthrene	371	ug/kg
Anthracene	428	ug/kg
Fluoranthene	894	ug/kg
Pyrene	996	ug/kg
Benzo[a]anthracene	416	ug/kg
Chrysene	401	ug/kg
Benzo[b]fluoranthene	303	ug/kg
Benzo[k]fluoranthene	326	ug/kg
Benzo[a]pyrene	345	ug/kg
Indeno[1,2,3-cd]pyrene	216	ug/kg
Dibenz[a,h]anthracene	68	ug/kg
Benzo[g,h,i]perylene	182	ug/kg



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## Analytical Report

Client: CLAYTON GROUP SERVICES  
Project ID: 15-04183  
Sample Number: 34324  
Sample Description: B-11/MW-3A 4-6  
Lab File ID: 34321-28

Date Received: 08/10/04  
Date Taken: 08/09/04  
Time Taken: 9:55  
Date Reported: 08/18/04

Analyte	Result	Units	Flags
Solids, Total	85.96	%	

### BTEX Method 5035A/8260B

Analysis Date: 08/16/04

Benzene	8.2	ug/kg
Toluene	< 5.0	ug/kg
Ethyl benzene	5.1	ug/kg
Xylenes (total)	< 5.0	ug/kg

### Polynuclear Aromatic Compounds Method 3540C/8270C

Preparation Date: 08/16/04

Analysis Date: 08/17/04

Naphthalene	7,430	ug/kg
Acenaphthylene	518	ug/kg
Acenaphthene	1,420	ug/kg
Fluorene	1,740	ug/kg
Phenanthrene	8,480	ug/kg
Anthracene	2,560	ug/kg
Fluoranthene	19,600	ug/kg
Pyrene	28,900	ug/kg
Benzo[a]anthracene	12,900	ug/kg
Chrysene	12,400	ug/kg
Benzo[b]fluoranthene	14,600	ug/kg
Benzo[k]fluoranthene	8,690	ug/kg
Benzo[a]pyrene	22,400	ug/kg
Indeno[1,2,3-cd]pyrene	9,550	ug/kg
Dibenz[a,h]anthracene	2,590	ug/kg
Benzo[g,h,i]perylene	9,010	ug/kg



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**Analytical Report**

Client: CLAYTON GROUP SERVICES  
Project ID: 15-04183  
Sample Number: 34322  
Sample Description: B-12A/2-4  
Lab File ID: 34321-28

Date Received: 08/10/04  
Date Taken: 08/09/04  
Time Taken: 9:33  
Date Reported: 08/18/04

Analyte	Result	Units	Flags
Solids, Total	82.94	%	

**BTEX Method 5035A/8260B**

Analysis Date: 08/16/04

Benzene	< 2.0	ug/kg
Toluene	< 5.0	ug/kg
Ethyl benzene	< 5.0	ug/kg
Xylenes (total)	< 5.0	ug/kg

**Polynuclear Aromatic Compounds Method 3540C/8270C**

Preparation Date: 08/12/04

Analysis Date: 08/14/04

Naphthalene	182	ug/kg
Acenaphthylene	71	ug/kg
Acenaphthene	87	ug/kg
Fluorene	103	ug/kg
Phenanthrene	1,250	ug/kg
Anthracene	332	ug/kg
Fluoranthene	2,780	ug/kg
Pyrene	2,890	ug/kg
Benzo[a]anthracene	1,740	ug/kg
Chrysene	1,870	ug/kg
Benzo[b]fluoranthene	1,590	ug/kg
Benzo[k]fluoranthene	1,710	ug/kg
Benzo[a]pyrene	1,980	ug/kg
Indeno[1,2,3-cd]pyrene	1,150	ug/kg
Dibenz[a,h]anthracene	316	ug/kg
Benzo[g,h,i]perylene	961	ug/kg



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## Analytical Report

Client: CLAYTON GROUP SERVICES  
Project ID: 15-04183  
Sample Number: 34323  
Sample Description: B-12B/6-8  
Lab File ID: 34321-28

Date Received: 08/10/04  
Date Taken: 08/09/04  
Time Taken: 9:39  
Date Reported: 08/18/04

Analyte	Result	Units	Flags
Solids, Total	86.22	%	

### BTEX Method 5035A/8260B

Analysis Date: 08/16/04

Benzene	< 2.0	ug/kg
Toluene	< 5.0	ug/kg
Ethyl benzene	< 5.0	ug/kg
Xylenes (total)	< 5.0	ug/kg

### Polynuclear Aromatic Compounds Method 3540C/8270C

Preparation Date: 08/12/04

Analysis Date: 08/14/04

Naphthalene	< 25	ug/kg
Acenaphthylene	< 50	ug/kg
Acenaphthene	< 50	ug/kg
Fluorene	< 50	ug/kg
Phenanthrene	< 50	ug/kg
Anthracene	< 50	ug/kg
Fluoranthene	< 50	ug/kg
Pyrene	< 50	ug/kg
Benzo[a]anthracene	< 8.7	ug/kg
Chrysene	< 50	ug/kg
Benzo[b]fluoranthene	< 11	ug/kg
Benzo[k]fluoranthene	< 11	ug/kg
Benzo[a]pyrene	< 15	ug/kg
Indeno[1,2,3-cd]pyrene	< 29	ug/kg
Dibenz[a,h]anthracene	< 20	ug/kg
Benzo[g,h,i]perylene	< 50	ug/kg



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Laboratories, Inc.**

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IL ELAP / NELAC Accreditation # 100292

**Analytical Report**

Client: CLAYTON GROUP SERVICES  
Project ID: 15-04183  
Sample Number: 34325  
Sample Description: B-15A/2-4  
Lab File ID: 34321-28

Date Received: 08/10/04  
Date Taken: 08/09/04  
Time Taken: 15:25  
Date Reported: 08/18/04

Analyte	Result	Units	Flags
---------	--------	-------	-------

Solids, Total	81.14	%	
---------------	-------	---	--

**BTEX Method 5035A/8260B**

Analysis Date: 08/16/04

Benzene	< 2.0	ug/kg	
Toluene	< 5.0	ug/kg	
Ethyl benzene	< 5.0	ug/kg	
Xylenes (total)	< 5.0	ug/kg	

**Polynuclear Aromatic Compounds Method 3540C/8270C**

Preparation Date: 08/12/04

Analysis Date: 08/14/04

Naphthalene	44	ug/kg	
Acenaphthylene	< 50	ug/kg	
Acenaphthene	< 50	ug/kg	
Fluorene	< 50	ug/kg	
Phenanthrene	204	ug/kg	
Anthracene	< 50	ug/kg	
Fluoranthene	134	ug/kg	
Pyrene	116	ug/kg	
Benzo[a]anthracene	77	ug/kg	
Chrysene	97	ug/kg	
Benzo[b]fluoranthene	67	ug/kg	
Benzo[k]fluoranthene	46	ug/kg	
Benzo[a]pyrene	82	ug/kg	
Indeno[1,2,3-cd]pyrene	35	ug/kg	
Dibenz[a,h]anthracene	< 20	ug/kg	
Benzo[g,h,i]perylene	< 50	ug/kg	



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**Analytical Report**

Client: CLAYTON GROUP SERVICES  
Project ID: 15-04183  
Sample Number: 34326  
Sample Description: B-15B/6-8  
Lab File ID: 34321-28

Date Received: 08/10/04  
Date Taken: 08/09/04  
Time Taken: 15:20  
Date Reported: 08/18/04

Analyte	Result	Units	Flags
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Solids, Total	80.52	%	
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**BTEX Method 5035A/8260B**

Analysis Date: 08/16/04

Benzene	< 2.0	ug/kg	
Toluene	< 5.0	ug/kg	
Ethyl benzene	< 5.0	ug/kg	
Xylenes (total)	< 5.0	ug/kg	

**Polynuclear Aromatic Compounds Method 3540C/8270C**

Preparation Date: 08/12/04

Analysis Date: 08/14/04

Naphthalene	< 25	ug/kg	
Acenaphthylene	< 50	ug/kg	
Acenaphthene	< 50	ug/kg	
Fluorene	< 50	ug/kg	
Phenanthrene	< 50	ug/kg	
Anthracene	< 50	ug/kg	
Fluoranthene	< 50	ug/kg	
Pyrene	< 50	ug/kg	
Benzo[a]anthracene	< 8.7	ug/kg	
Chrysene	< 50	ug/kg	
Benzo[b]fluoranthene	< 11	ug/kg	
Benzo[k]fluoranthene	< 11	ug/kg	
Benzo[a]pyrene	< 15	ug/kg	
Indeno[1,2,3-cd]pyrene	< 29	ug/kg	
Dibenz[a,h]anthracene	< 20	ug/kg	
Benzo[g,h,i]perylene	< 50	ug/kg	



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## Analytical Report

Client:	CLAYTON GROUP SERVICES	Date Received:	08/10/04
Project ID:	15-04183	Date Taken:	08/09/04
Sample Number:	34327	Time Taken:	11:19
Sample Description:	B-14/MW-2A 5	Date Reported:	08/18/04
Lab File ID:	34321-28		

Analyte	Result	Units	Date Analyzed	Method
Solids, Total	83.38	%	08/11/04	160.3
pH @ 25°C (1:10)	8.73	units	08/11/04	9045C
<b>Total Metals</b>				
Arsenic	2.9	mg/kg	08/16/04	3050B/6010B
Barium	46.4	mg/kg	08/16/04	3050B/6010B
Cadmium	<0.1	mg/kg	08/16/04	3050B/6010B
Chromium	24.9	mg/kg	08/16/04	3050B/6010B
Lead	18.0	mg/kg	08/16/04	3050B/6010B
Mercury	<0.05	mg/kg	08/13/04	7470A
Selenium	<0.2	mg/kg	08/16/04	3050B/6010B
Silver	<0.1	mg/kg	08/16/04	3050B/6010B
<b>TCLP Metals</b>				
Arsenic	<0.002	mg/L	08/16/04	3010A/6010B
Barium	<1.0	mg/L	08/16/04	3010A/6010B
Cadmium	<0.001	mg/L	08/16/04	3010A/6010B
Chromium	<0.001	mg/L	08/16/04	3010A/6010B
Lead	0.014	mg/L	08/16/04	3010A/6010B
Mercury	<0.0005	mg/L	08/13/04	7470A
Selenium	<0.002	mg/L	08/16/04	3010A/6010B
Silver	<0.001	mg/L	08/16/04	3010A/6010B


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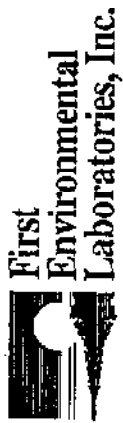
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**Analytical Report**

Client:	CLAYTON GROUP SERVICES		
Project ID:	15-04183	Date Received:	08/10/04
Sample Number:	34328	Date Taken:	08/09/04
Sample Description:	B-14/MW-2B 8	Time Taken:	11:25
Lab File ID:	34321-28	Date Reported:	08/18/04

Analyte	Result	Units	Date Analyzed	Method
Solids, Total	79.68	%	08/11/04	160.3
pH @ 25°C (1:10)	8.75	units	08/11/04	9045C
<b>Total Metals</b>				
Arsenic	9.1	mg/kg	08/16/04	3050B/6010B
Barium	29.0	mg/kg	08/16/04	3050B/6010B
Cadmium	<0.1	mg/kg	08/16/04	3050B/6010B
Chromium	19.2	mg/kg	08/16/04	3050B/6010B
Lead	18.1	mg/kg	08/16/04	3050B/6010B
Mercury	<0.05	mg/kg	08/13/04	7470A
Selenium	<0.2	mg/kg	08/16/04	3050B/6010B
Silver	<0.1	mg/kg	08/16/04	3050B/6010B
<b>TCLP Metals</b>				
Arsenic	<0.002	mg/L	08/16/04	3010A/6010B
Barium	<1.0	mg/L	08/16/04	3010A/6010B
Cadmium	<0.001	mg/L	08/16/04	3010A/6010B
Chromium	<0.001	mg/L	08/16/04	3010A/6010B
Lead	<0.002	mg/L	08/16/04	3010A/6010B
Mercury	<0.0005	mg/L	08/13/04	7470A
Selenium	<0.002	mg/L	08/16/04	3010A/6010B
Silver	<0.001	mg/L	08/16/04	3010A/6010B

CHAIN OF CUSTODY RECORD



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24 Hr. Pager (708) 569-7507  
E-mail: info@firstenv.com  
IEPA Certification# 100292

Company Name: Clayton Group Services  
Street Address: 3140 Finley Rd  
City: Downers Grove  
State: IL Zip: 60515  
Phone: 795-3200 Fax: 795-1130  
Send Report To: Marie Mueller  
Sampled By: Dorcia Lamsma

Matrix Codes: S = Soil W = Water O = Other			Analyses					Comments	Lab I.D.
Date/Time Taken	Sample Description	Matrix	BTEX	PH	SCIP & RCR	SCIP & RCR	SCIP & RCR		
8/9 0834	B-10A/4-6	S	X	X					34321
0937	B-12A/2-4	S	X	X					322
0939	B-12B/6-8	S	X	X					323
0944	B-12C/10-12	S						HOLD	
0955	B-11/MW-7A 4-6	S	X	X					324
1010	GW-10	W						HOLD	
1525	B-15A/2-4	S	X	X					325
1520	B-15B/6-8	S	X	X					326
1512	B-15C/10-12	S						HOLD	
1119	B-14/MW-2A S	S		X	X				327
1125	B-14/MW-2B 8	S		X	X				328
1128	B-14/MW-8C 11	S						HOLD	

Cooler Temperature: 15°C  
Received within 6 hrs. of collection:

Notes and Special Instructions:

Relinquished By: [Signature] Date/Time: 8-10-04 1200  
Relinquished By: [Signature] Date/Time: 8-10-04 0600  
Received By: [Signature] Date/Time: 8-10-04 1200



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August 20, 2004

Ms. Marie Mueller  
**CLAYTON GROUP SERVICES INC.**  
3140 Finley Road  
Downers Grove, IL 60515

Project ID: 15-04183  
First Environmental File ID: 34608-30  
Date Received: August 12, 2004

Dear Ms. Mueller:

The above referenced project was analyzed as directed on the enclosed chain of custody record.

**PROJECT SUMMARY**

Analyses were performed in accordance with the methods found in the USEPA publication: Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW-846, 3<sup>rd</sup> Edition, December 1996. Specific method references are listed on the Analytical Report.

Results for the soil samples have been expressed on a dry weight basis per method protocol.

All analyses were performed within established holding times, and all Quality Control criteria as outlined in the methods and current IL ELAP/NELAP have been met. QA/QC documentation will remain on file for future reference.

I thank you for the opportunity to be of service and look forward to working with you again in the future. Should you have any questions regarding any of the enclosed analytical data, please contact me at (630) 778-1200.

Sincerely,

William H. Mottashed  
Project Manager



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## Analytical Report

Client:	CLAYTON GROUP SERVICES		
Project ID:	15-04183	Date Received:	08/12/04
Sample Number:	34610	Date Taken:	08/10/04
Sample Description:	B-13A/1.5	Time Taken:	7:55
Lab File ID:	34608-30	Date Reported:	08/20/04

Analyte	Result	Units	Date Analyzed	Method
Solids, Total	93.75	%	08/16/04	160.3
pH @ 25°C (1:10)	8.59	units	08/13/04	9045C
<b>Total Metals</b>				
Arsenic	7.6	mg/kg	08/17/04	3050B/6010B
Barium	88.5	mg/kg	08/17/04	3050B/6010B
Cadmium	14.5	mg/kg	08/17/04	3050B/6010B
Chromium	15.4	mg/kg	08/17/04	3050B/6010B
Lead	1,200	mg/kg	08/17/04	3050B/6010B
Mercury	0.36	mg/kg	08/13/04	7470A
Selenium	<0.2	mg/kg	08/17/04	3050B/6010B
Silver	20.3	mg/kg	08/17/04	3050B/6010B
<b>TCLP Metals</b>				
Arsenic	0.005	mg/L	08/17/04	3010A/6010B
Barium	<1.0	mg/L	08/17/04	3010A/6010B
Cadmium	0.143	mg/L	08/17/04	3010A/6010B
Chromium	0.002	mg/L	08/17/04	3010A/6010B
Lead	0.680	mg/L	08/17/04	3010A/6010B
Mercury	<0.0005	mg/L	08/13/04	7470A
Selenium	<0.002	mg/L	08/17/04	3010A/6010B
Silver	<0.001	mg/L	08/17/04	3010A/6010B



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**Analytical Report**

Client:	CLAYTON GROUP SERVICES		
Project ID:	15-04183	Date Received:	08/12/04
Sample Number:	34611	Date Taken:	08/10/04
Sample Description:	B-13B/3	Time Taken:	7:57
Lab File ID:	34608-30	Date Reported:	08/20/04

Analyte	Result	Units	Date Analyzed	Method
Solids, Total	97.88	%	08/16/04	160.3
pH @ 25°C (1:10)	8.37	units	08/13/04	9045C
<b>Total Metals</b>				
Arsenic	1.1	mg/kg	08/17/04	3050B/6010B
Barium	2.8	mg/kg	08/17/04	3050B/6010B
Cadmium	<0.1	mg/kg	08/17/04	3050B/6010B
Chromium	1.3	mg/kg	08/17/04	3050B/6010B
Lead	3.4	mg/kg	08/17/04	3050B/6010B
Mercury	<0.05	mg/kg	08/13/04	7470A
Selenium	<0.2	mg/kg	08/17/04	3050B/6010B
Silver	<0.1	mg/kg	08/17/04	3050B/6010B
<b>TCLP Metals</b>				
Arsenic	<0.002	mg/L	08/17/04	3010A/6010B
Barium	<1.0	mg/L	08/17/04	3010A/6010B
Cadmium	0.009	mg/L	08/17/04	3010A/6010B
Chromium	0.002	mg/L	08/17/04	3010A/6010B
Lead	0.030	mg/L	08/17/04	3010A/6010B
Mercury	<0.0005	mg/L	08/13/04	7470A
Selenium	<0.002	mg/L	08/17/04	3010A/6010B
Silver	<0.001	mg/L	08/17/04	3010A/6010B



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## Analytical Report

Client:	CLAYTON GROUP SERVICES	Date Received:	08/12/04
Project ID:	15-04183	Date Taken:	08/10/04
Sample Number:	34608	Time Taken:	7:22
Sample Description:	B-16A/2	Date Reported:	08/20/04
Lab File ID:	34608-30		

Analyte	Result	Units	Date Analyzed	Method
Solids, Total	87.12	%	08/16/04	160.3
pH @ 25°C (1:10)	8.16	units	08/13/04	9045C
<b>Total Metals</b>				
Arsenic	16.0	mg/kg	08/17/04	3050B/6010B
Barium	94.9	mg/kg	08/17/04	3050B/6010B
Cadmium	6.9	mg/kg	08/17/04	3050B/6010B
Chromium	10.8	mg/kg	08/17/04	3050B/6010B
Lead	299	mg/kg	08/17/04	3050B/6010B
Mercury	0.09	mg/kg	08/13/04	7470A
Selenium	<0.2	mg/kg	08/17/04	3050B/6010B
Silver	0.8	mg/kg	08/17/04	3050B/6010B
<b>TCLP Metals</b>				
Arsenic	0.003	mg/L	08/17/04	3010A/6010B
Barium	<1.0	mg/L	08/17/04	3010A/6010B
Cadmium	0.028	mg/L	08/17/04	3010A/6010B
Chromium	<0.001	mg/L	08/17/04	3010A/6010B
Lead	0.030	mg/L	08/17/04	3010A/6010B
Mercury	<0.0005	mg/L	08/13/04	7470A
Selenium	<0.002	mg/L	08/17/04	3010A/6010B
Silver	<0.001	mg/L	08/17/04	3010A/6010B



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**Analytical Report**

Client:	CLAYTON GROUP SERVICES	Date Received:	08/12/04
Project ID:	15-04183	Date Taken:	08/10/04
Sample Number:	34609	Time Taken:	7:26
Sample Description:	B-16B/4	Date Reported:	08/20/04
Lab File ID:	34608-30		

Analyte	Result	Units	Date Analyzed	Method
Solids, Total	86.70	%	08/16/04	160.3
pH @ 25°C (1:10)	8.35	units	08/13/04	9045C
<b>Total Metals</b>				
Arsenic	1.0	mg/kg	08/17/04	3050B/6010B
Barium	2.4	mg/kg	08/17/04	3050B/6010B
Cadmium	<0.1	mg/kg	08/17/04	3050B/6010B
Chromium	1.4	mg/kg	08/17/04	3050B/6010B
Lead	1.3	mg/kg	08/17/04	3050B/6010B
Mercury	<0.05	mg/kg	08/13/04	7470A
Selenium	<0.2	mg/kg	08/17/04	3050B/6010B
Silver	<0.1	mg/kg	08/17/04	3050B/6010B
<b>TCLP Metals</b>				
Arsenic	<0.002	mg/L	08/17/04	3010A/6010B
Barium	<1.0	mg/L	08/17/04	3010A/6010B
Cadmium	0.002	mg/L	08/17/04	3010A/6010B
Chromium	0.002	mg/L	08/17/04	3010A/6010B
Lead	0.012	mg/L	08/17/04	3010A/6010B
Mercury	<0.0005	mg/L	08/13/04	7470A
Selenium	<0.002	mg/L	08/17/04	3010A/6010B
Silver	<0.001	mg/L	08/17/04	3010A/6010B


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**Analytical Report**

Client:	CLAYTON GROUP SERVICES		
Project ID:	15-04183	Date Received:	08/12/04
Sample Number:	34613	Date Taken:	08/10/04
Sample Description:	B-17/MW-4A 1.5	Time Taken:	10:25
Lab File ID:	34608-30	Date Reported:	08/20/04

Analyte	Result	Units	Date Analyzed	Method
Solids, Total	84.17	%	08/16/04	160.3
pH @ 25°C (1:10)	8.13	units	08/13/04	9045C
<b>Total Metals</b>				
Arsenic	21.3	mg/kg	08/17/04	3050B/6010B
Barium	219	mg/kg	08/17/04	3050B/6010B
Cadmium	<0.1	mg/kg	08/17/04	3050B/6010B
Chromium	26.6	mg/kg	08/17/04	3050B/6010B
Lead	1,090	mg/kg	08/17/04	3050B/6010B
Mercury	0.24	mg/kg	08/13/04	7470A
Selenium	1.3	mg/kg	08/17/04	3050B/6010B
Silver	1.7	mg/kg	08/17/04	3050B/6010B
<b>TCLP Metals</b>				
Arsenic	0.008	mg/L	08/17/04	3010A/6010B
Barium	<1.0	mg/L	08/17/04	3010A/6010B
Cadmium	0.043	mg/L	08/17/04	3010A/6010B
Chromium	0.004	mg/L	08/17/04	3010A/6010B
Lead	0.619	mg/L	08/17/04	3010A/6010B
Mercury	<0.0005	mg/L	08/13/04	7470A
Selenium	<0.002	mg/L	08/17/04	3010A/6010B
Silver	0.002	mg/L	08/17/04	3010A/6010B



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## Analytical Report

Client:	CLAYTON GROUP SERVICES	Date Received:	08/12/04
Project ID:	15-04183	Date Taken:	08/10/04
Sample Number:	34614	Time Taken:	10:34
Sample Description:	B-17/MW-4B 4	Date Reported:	08/20/04
Lab File ID:	34608-30		

Analyte	Result	Units	Date Analyzed	Method
Solids, Total	82.70	%	08/16/04	160.3
pH @ 25°C (1:10)	8.33	units	08/13/04	9045C
<b>Total Metals</b>				
Arsenic	16.7	mg/kg	08/17/04	3050B/6010B
Barium	48.8	mg/kg	08/17/04	3050B/6010B
Cadmium	<0.1	mg/kg	08/17/04	3050B/6010B
Chromium	19.3	mg/kg	08/17/04	3050B/6010B
Lead	24.0	mg/kg	08/17/04	3050B/6010B
Mercury	<0.05	mg/kg	08/13/04	7470A
Selenium	<0.2	mg/kg	08/17/04	3050B/6010B
Silver	<0.1	mg/kg	08/17/04	3050B/6010B
<b>TCLP Metals</b>				
Arsenic	<0.002	mg/L	08/17/04	3010A/6010B
Barium	<1.0	mg/L	08/17/04	3010A/6010B
Cadmium	<0.001	mg/L	08/17/04	3010A/6010B
Chromium	0.002	mg/L	08/17/04	3010A/6010B
Lead	0.034	mg/L	08/17/04	3010A/6010B
Mercury	<0.0005	mg/L	08/13/04	7470A
Selenium	<0.002	mg/L	08/17/04	3010A/6010B
Silver	<0.001	mg/L	08/17/04	3010A/6010B



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## Analytical Report

Client: CLAYTON GROUP SERVICES  
Project ID: 15-04183  
Sample Number: 34616  
Sample Description: B-18A/0-2  
Lab File ID: 34608-30

Date Received: 08/12/04  
Date Taken: 08/10/04  
Time Taken: 15:50  
Date Reported: 08/20/04

Analyte	Result	Units	Flags
Solids, Total	97.02	%	

### Volatile Organic Compounds Method 5035A/8260B

Analysis Date: 08/17/04

Acetone	< 10.0	ug/kg	
Benzene	< 5.0	ug/kg	
Bromodichloromethane	< 5.0	ug/kg	
Bromoform	< 5.0	ug/kg	
Bromomethane	< 10.0	ug/kg	
2-Butanone	< 10.0	ug/kg	
Carbon disulfide	< 5.0	ug/kg	
Carbon tetrachloride	< 5.0	ug/kg	
Chlorobenzene	< 5.0	ug/kg	
Chlorodibromomethane	< 5.0	ug/kg	
Chloroethane	< 10.0	ug/kg	
Chloroform	< 5.0	ug/kg	
Chloromethane	< 10.0	ug/kg	
1,1-Dichloroethane	< 5.0	ug/kg	
1,2-Dichloroethane	< 5.0	ug/kg	
1,1-Dichloroethene	< 5.0	ug/kg	
cis-1,2-Dichloroethene	< 5.0	ug/kg	
trans-1,2-Dichloroethene	< 5.0	ug/kg	
1,2-Dichloropropane	< 5.0	ug/kg	
cis-1,3-Dichloropropene	< 5.0	ug/kg	
trans-1,3-Dichloropropene	< 5.0	ug/kg	
Ethyl benzene	< 5.0	ug/kg	
2-Hexanone	< 10.0	ug/kg	
4-Methyl-2-pentanone	< 10.0	ug/kg	
Methylene chloride	< 5.0	ug/kg	
MTBE	< 5.0	ug/kg	
Styrene	< 5.0	ug/kg	
1,1,2,2-Tetrachloroethane	< 5.0	ug/kg	
Tetrachloroethene	< 5.0	ug/kg	
Toluene	< 5.0	ug/kg	
1,1,1-Trichloroethane	< 5.0	ug/kg	
1,1,2-Trichloroethane	< 5.0	ug/kg	
Trichloroethene	< 5.0	ug/kg	
Vinyl Acetate	< 10.0	ug/kg	
Vinyl Chloride	< 10.0	ug/kg	
Xylenes (total)	< 5.0	ug/kg	



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## Analytical Report

Client: CLAYTON GROUP SERVICES  
Project ID: 15-04183  
Sample Number: 34616  
Sample Description: B-18A/0-2  
Lab File ID: 34608-30

Date Received: 08/12/04  
Date Taken: 08/10/04  
Time Taken: 15:50  
Date Reported: 08/20/04

Analyte	Result	Units	Flags
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### Polynuclear Aromatic Compounds Method 3540C/8270C

Preparation Date: 08/16/04

Analysis Date: 08/18/04

Naphthalene	< 25	ug/kg	
Acenaphthylene	< 50	ug/kg	
Acenaphthene	< 50	ug/kg	
Fluorene	< 50	ug/kg	
Phenanthrene	< 50	ug/kg	
Anthracene	< 50	ug/kg	
Fluoranthene	< 50	ug/kg	
Pyrene	< 50	ug/kg	
Benzo[a]anthracene	< 8.7	ug/kg	
Chrysene	< 50	ug/kg	
Benzo[b]fluoranthene	< 11	ug/kg	
Benzo[k]fluoranthene	< 11	ug/kg	
Benzo[a]pyrene	< 15	ug/kg	
Indeno[1,2,3-cd]pyrene	< 29	ug/kg	
Dibenz[a,h]anthracene	< 20	ug/kg	
Benzo[g,h,i]perylene	< 50	ug/kg	

Analyte	Result	Units	Date Analyzed	Method
pH @ 25°C (1:10)	8.31	units	08/13/04	9045C
<b>Total Metals</b>				
Arsenic	1.1	mg/kg	08/17/04	3050B/6010B
Barium	4.1	mg/kg	08/17/04	3050B/6010B
Cadmium	<0.1	mg/kg	08/17/04	3050B/6010B
Chromium	1.8	mg/kg	08/17/04	3050B/6010B
Lead	1.7	mg/kg	08/17/04	3050B/6010B
Mercury	<0.05	mg/kg	08/13/04	7470A
Selenium	<0.2	mg/kg	08/17/04	3050B/6010B
Silver	<0.1	mg/kg	08/17/04	3050B/6010B
<b>TCLP Metals</b>				
Arsenic	<0.002	mg/L	08/17/04	3010A/6010B
Barium	<1.0	mg/L	08/17/04	3010A/6010B
Cadmium	0.002	mg/L	08/17/04	3010A/6010B
Chromium	0.002	mg/L	08/17/04	3010A/6010B
Lead	0.006	mg/L	08/17/04	3010A/6010B
Mercury	<0.0005	mg/L	08/13/04	7470A
Selenium	<0.002	mg/L	08/17/04	3010A/6010B
Silver	<0.001	mg/L	08/17/04	3010A/6010B



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## Analytical Report

Client: CLAYTON GROUP SERVICES  
Project ID: 15-04183  
Sample Number: 34615  
Sample Description: B-18B/6-8  
Lab File ID: 34608-30

Date Received: 08/12/04  
Date Taken: 08/10/04  
Time Taken: 15:46  
Date Reported: 08/20/04

Analyte	Result	Units	Flags
Solids, Total	96.69	%	

### Volatile Organic Compounds Method 5035A/8260B

Analysis Date: 08/17/04

Acetone	< 10.0	ug/kg	
Benzene	< 5.0	ug/kg	
Bromodichloromethane	< 5.0	ug/kg	
Bromoform	< 5.0	ug/kg	
Bromomethane	< 10.0	ug/kg	
2-Butanone	< 10.0	ug/kg	
Carbon disulfide	< 5.0	ug/kg	
Carbon tetrachloride	< 5.0	ug/kg	
Chlorobenzene	< 5.0	ug/kg	
Chlorodibromomethane	< 5.0	ug/kg	
Chloroethane	< 10.0	ug/kg	
Chloroform	< 5.0	ug/kg	
Chloromethane	< 10.0	ug/kg	
1,1-Dichloroethane	< 5.0	ug/kg	
1,2-Dichloroethane	< 5.0	ug/kg	
1,1-Dichloroethene	< 5.0	ug/kg	
cis-1,2-Dichloroethene	< 5.0	ug/kg	
trans-1,2-Dichloroethene	< 5.0	ug/kg	
1,2-Dichloropropane	< 5.0	ug/kg	
cis-1,3-Dichloropropene	< 5.0	ug/kg	
trans-1,3-Dichloropropene	< 5.0	ug/kg	
Ethyl benzene	< 5.0	ug/kg	
2-Hexanone	< 10.0	ug/kg	
4-Methyl-2-pentanone	< 10.0	ug/kg	
Methylene chloride	< 5.0	ug/kg	
MTBE	< 5.0	ug/kg	
Styrene	< 5.0	ug/kg	
1,1,2,2-Tetrachloroethane	< 5.0	ug/kg	
Tetrachloroethene	< 5.0	ug/kg	
Toluene	< 5.0	ug/kg	
1,1,1-Trichloroethane	< 5.0	ug/kg	
1,1,2-Trichloroethane	< 5.0	ug/kg	
Trichloroethene	< 5.0	ug/kg	
Vinyl Acetate	< 10.0	ug/kg	
Vinyl Chloride	< 10.0	ug/kg	
Xylenes (total)	< 5.0	ug/kg	



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## Analytical Report

Client:	CLAYTON GROUP SERVICES	Date Received:	08/12/04
Project ID:	15-04183	Date Taken:	08/10/04
Sample Number:	34615	Time Taken:	15:46
Sample Description:	B-18B/6-8	Date Reported:	08/20/04
Lab File ID:	34608-30		

Analyte	Result	Units	Flags
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### Polynuclear Aromatic Compounds Method 3540C/8270C

Preparation Date: 08/16/04

Analysis Date: 08/18/04

Naphthalene	< 25	ug/kg
Acenaphthylene	< 50	ug/kg
Acenaphthene	< 50	ug/kg
Fluorene	< 50	ug/kg
Phenanthrene	< 50	ug/kg
Anthracene	< 50	ug/kg
Fluoranthene	< 50	ug/kg
Pyrene	< 50	ug/kg
Benzo[a]anthracene	< 8.7	ug/kg
Chrysene	< 50	ug/kg
Benzo[b]fluoranthene	< 11	ug/kg
Benzo[k]fluoranthene	< 11	ug/kg
Benzo[a]pyrene	< 15	ug/kg
Indeno[1,2,3-cd]pyrene	< 29	ug/kg
Dibenz[a,h]anthracene	< 20	ug/kg
Benzo[g,h,i]perylene	< 50	ug/kg

Analyte	Result	Units	Date Analyzed	Method
pH @ 25°C (1:10)	8.83	units	08/13/04	9045C
<b>Total Metals</b>				
Arsenic	1.0	mg/kg	08/17/04	3050B/6010B
Barium	3.4	mg/kg	08/17/04	3050B/6010B
Cadmium	<0.1	mg/kg	08/17/04	3050B/6010B
Chromium	1.4	mg/kg	08/17/04	3050B/6010B
Lead	1.2	mg/kg	08/17/04	3050B/6010B
Mercury	<0.05	mg/kg	08/13/04	7470A
Selenium	<0.2	mg/kg	08/17/04	3050B/6010B
Silver	<0.1	mg/kg	08/17/04	3050B/6010B
<b>TCLP Metals</b>				
Arsenic	<0.002	mg/L	08/17/04	3010A/6010B
Barium	<1.0	mg/L	08/17/04	3010A/6010B
Cadmium	0.003	mg/L	08/17/04	3010A/6010B
Chromium	0.002	mg/L	08/17/04	3010A/6010B
Lead	0.007	mg/L	08/17/04	3010A/6010B
Mercury	<0.0005	mg/L	08/13/04	7470A
Selenium	<0.002	mg/L	08/17/04	3010A/6010B
Silver	<0.001	mg/L	08/17/04	3010A/6010B



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## Analytical Report

Client: CLAYTON GROUP SERVICES  
Project ID: 15-04183  
Sample Number: 34617  
Sample Description: B-19A/0-2  
Lab File ID: 34608-30

Date Received: 08/12/04  
Date Taken: 08/10/04  
Time Taken: 15:55  
Date Reported: 08/20/04

Analyte	Result	Units	Flags
Solids, Total	94.34	%	

### Volatile Organic Compounds Method 5035A/8260B

Analysis Date: 08/18/04

Acetone	< 10.0	ug/kg	
Benzene	< 5.0	ug/kg	
Bromodichloromethane	< 5.0	ug/kg	
Bromoform	< 5.0	ug/kg	
Bromomethane	< 10.0	ug/kg	
2-Butanone	< 10.0	ug/kg	
Carbon disulfide	< 5.0	ug/kg	
Carbon tetrachloride	< 5.0	ug/kg	
Chlorobenzene	< 5.0	ug/kg	
Chlorodibromomethane	< 5.0	ug/kg	
Chloroethane	< 10.0	ug/kg	
Chloroform	< 5.0	ug/kg	
Chloromethane	< 10.0	ug/kg	
1,1-Dichloroethane	< 5.0	ug/kg	
1,2-Dichloroethane	< 5.0	ug/kg	
1,1-Dichloroethene	< 5.0	ug/kg	
cis-1,2-Dichloroethene	< 5.0	ug/kg	
trans-1,2-Dichloroethene	< 5.0	ug/kg	
1,2-Dichloropropane	< 5.0	ug/kg	
cis-1,3-Dichloropropene	< 5.0	ug/kg	
trans-1,3-Dichloropropene	< 5.0	ug/kg	
Ethyl benzene	< 5.0	ug/kg	
2-Hexanone	< 10.0	ug/kg	
4-Methyl-2-pentanone	< 10.0	ug/kg	
Methylene chloride	< 5.0	ug/kg	
MTBE	< 5.0	ug/kg	
Styrene	< 5.0	ug/kg	
1,1,2,2-Tetrachloroethane	< 5.0	ug/kg	
Tetrachloroethene	< 5.0	ug/kg	
Toluene	< 5.0	ug/kg	
1,1,1-Trichloroethane	< 5.0	ug/kg	
1,1,2-Trichloroethane	< 5.0	ug/kg	
Trichloroethene	< 5.0	ug/kg	
Vinyl Acetate	< 10.0	ug/kg	
Vinyl Chloride	< 10.0	ug/kg	
Xylenes (total)	< 5.0	ug/kg	



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## Analytical Report

Client: CLAYTON GROUP SERVICES  
Project ID: 15-04183  
Sample Number: 34617  
Sample Description: B-19A/0-2  
Lab File ID: 34608-30

Date Received: 08/12/04  
Date Taken: 08/10/04  
Time Taken: 15:55  
Date Reported: 08/20/04

Analyte	Result	Units	Flags
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### Polynuclear Aromatic Compounds Method 3540C/8270C

Preparation Date: 08/16/04

Analysis Date: 08/18/04

Naphthalene	67	ug/kg	
Acenaphthylene	< 50	ug/kg	
Acenaphthene	< 50	ug/kg	
Fluorene	< 50	ug/kg	
Phenanthrene	210	ug/kg	
Anthracene	< 50	ug/kg	
Fluoranthene	264	ug/kg	
Pyrene	247	ug/kg	
Benzo[a]anthracene	142	ug/kg	
Chrysene	160	ug/kg	
Benzo[b]fluoranthene	128	ug/kg	
Benzo[k]fluoranthene	157	ug/kg	
Benzo[a]pyrene	171	ug/kg	
Indeno[1,2,3-cd]pyrene	110	ug/kg	
Dibenz[a,h]anthracene	28	ug/kg	
Benzo[g,h,i]perylene	94	ug/kg	

Analyte	Result	Units	Date Analyzed	Method
pH @ 25°C (1:10)	8.33	units	08/13/04	9045C
<b>Total Metals</b>				
Arsenic	5.5	mg/kg	08/17/04	3050B/6010B
Barium	57.4	mg/kg	08/17/04	3050B/6010B
Cadmium	1.7	mg/kg	08/17/04	3050B/6010B
Chromium	8.4	mg/kg	08/17/04	3050B/6010B
Lead	112	mg/kg	08/17/04	3050B/6010B
Mercury	0.10	mg/kg	08/13/04	7470A
Selenium	<0.2	mg/kg	08/17/04	3050B/6010B
Silver	1.2	mg/kg	08/17/04	3050B/6010B
<b>TCLP Metals</b>				
Arsenic	<0.002	mg/L	08/17/04	3010A/6010B
Barium	<1.0	mg/L	08/17/04	3010A/6010B
Cadmium	0.038	mg/L	08/17/04	3010A/6010B
Chromium	0.002	mg/L	08/17/04	3010A/6010B
Lead	0.315	mg/L	08/17/04	3010A/6010B
Mercury	<0.0005	mg/L	08/13/04	7470A
Selenium	<0.002	mg/L	08/17/04	3010A/6010B
Silver	<0.001	mg/L	08/17/04	3010A/6010B



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## Analytical Report

Client: CLAYTON GROUP SERVICES  
Project ID: 15-04183  
Sample Number: 34618  
Sample Description: B-19B/4-6  
Lab File ID: 34608-30

Date Received: 08/12/04  
Date Taken: 08/10/04  
Time Taken: 16:00  
Date Reported: 08/20/04

Analyte	Result	Units	Flags
Solids, Total	97.34	%	

### Volatile Organic Compounds Method 5035A/8260B

Analysis Date: 08/17/04

Acetone	< 10.0	ug/kg	
Benzene	< 5.0	ug/kg	
Bromodichloromethane	< 5.0	ug/kg	
Bromoform	< 5.0	ug/kg	
Bromomethane	< 10.0	ug/kg	
2-Butanone	< 10.0	ug/kg	
Carbon disulfide	< 5.0	ug/kg	
Carbon tetrachloride	< 5.0	ug/kg	
Chlorobenzene	< 5.0	ug/kg	
Chlorodibromomethane	< 5.0	ug/kg	
Chloroethane	< 10.0	ug/kg	
Chloroform	< 5.0	ug/kg	
Chloromethane	< 10.0	ug/kg	
1,1-Dichloroethane	< 5.0	ug/kg	
1,2-Dichloroethane	< 5.0	ug/kg	
1,1-Dichloroethene	< 5.0	ug/kg	
cis-1,2-Dichloroethene	< 5.0	ug/kg	
trans-1,2-Dichloroethene	< 5.0	ug/kg	
1,2-Dichloropropane	< 5.0	ug/kg	
cis-1,3-Dichloropropene	< 5.0	ug/kg	
trans-1,3-Dichloropropene	< 5.0	ug/kg	
Ethyl benzene	< 5.0	ug/kg	
2-Hexanone	< 10.0	ug/kg	
4-Methyl-2-pentanone	< 10.0	ug/kg	
Methylene chloride	< 5.0	ug/kg	
MTBE	< 5.0	ug/kg	
Styrene	< 5.0	ug/kg	
1,1,2,2-Tetrachloroethane	< 5.0	ug/kg	
Tetrachloroethene	< 5.0	ug/kg	
Toluene	< 5.0	ug/kg	
1,1,1-Trichloroethane	< 5.0	ug/kg	
1,1,2-Trichloroethane	< 5.0	ug/kg	
Trichloroethene	< 5.0	ug/kg	
Vinyl Acetate	< 10.0	ug/kg	
Vinyl Chloride	< 10.0	ug/kg	
Xylenes (total)	< 5.0	ug/kg	



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## Analytical Report

Client: CLAYTON GROUP SERVICES  
Project ID: 15-04183  
Sample Number: 34618  
Sample Description: B-19B/4-6  
Lab File ID: 34608-30

Date Received: 08/12/04  
Date Taken: 08/10/04  
Time Taken: 16:00  
Date Reported: 08/20/04

Analyte	Result	Units	Flags
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### Polynuclear Aromatic Compounds Method 3540C/8270C

Preparation Date: 08/16/04

Analysis Date: 08/18/04

Naphthalene	< 25	ug/kg	
Acenaphthylene	< 50	ug/kg	
Acenaphthene	< 50	ug/kg	
Fluorene	< 50	ug/kg	
Phenanthrene	< 50	ug/kg	
Anthracene	< 50	ug/kg	
Fluoranthene	< 50	ug/kg	
Pyrene	< 50	ug/kg	
Benzo[a]anthracene	< 8.7	ug/kg	
Chrysene	< 50	ug/kg	
Benzo[b]fluoranthene	< 11	ug/kg	
Benzo[k]fluoranthene	< 11	ug/kg	
Benzo[a]pyrene	< 15	ug/kg	
Indeno[1,2,3-cd]pyrene	< 29	ug/kg	
Dibenz[a,h]anthracene	< 20	ug/kg	
Benzo[g,h,i]perylene	< 50	ug/kg	

Analyte	Result	Units	Date Analyzed	Method
pH @ 25°C (1:10)	8.24	units	08/13/04	9045C
<b>Total Metals</b>				
Arsenic	1.1	mg/kg	08/17/04	3050B/6010B
Barium	5.8	mg/kg	08/17/04	3050B/6010B
Cadmium	<0.1	mg/kg	08/17/04	3050B/6010B
Chromium	1.4	mg/kg	08/17/04	3050B/6010B
Lead	1.6	mg/kg	08/17/04	3050B/6010B
Mercury	<0.05	mg/kg	08/13/04	7470A
Selenium	<0.2	mg/kg	08/17/04	3050B/6010B
Silver	<0.1	mg/kg	08/17/04	3050B/6010B
<b>TCLP Metals</b>				
Arsenic	<0.002	mg/L	08/17/04	3010A/6010B
Barium	<1.0	mg/L	08/17/04	3010A/6010B
Cadmium	0.005	mg/L	08/17/04	3010A/6010B
Chromium	<0.001	mg/L	08/17/04	3010A/6010B
Lead	0.007	mg/L	08/17/04	3010A/6010B
Mercury	<0.0005	mg/L	08/13/04	7470A
Selenium	<0.002	mg/L	08/17/04	3010A/6010B
Silver	<0.001	mg/L	08/17/04	3010A/6010B



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## Analytical Report

Client: CLAYTON GROUP SERVICES  
Project ID: 15-04183  
Sample Number: 34619  
Sample Description: B-20A/0-2  
Lab File ID: 34608-30

Date Received: 08/12/04  
Date Taken: 08/10/04  
Time Taken: 16:05  
Date Reported: 08/20/04

Analyte	Result	Units	Flags
Solids, Total	86.19	%	

### Volatile Organic Compounds Method 5035A/8260B

Analysis Date: 08/18/04

Acetone	< 10.0	ug/kg	
Benzene	< 5.0	ug/kg	
Bromodichloromethane	< 5.0	ug/kg	
Bromoform	< 5.0	ug/kg	
Bromomethane	< 10.0	ug/kg	
2-Butanone	< 10.0	ug/kg	
Carbon disulfide	< 5.0	ug/kg	
Carbon tetrachloride	< 5.0	ug/kg	
Chlorobenzene	< 5.0	ug/kg	
Chlorodibromomethane	< 5.0	ug/kg	
Chloroethane	< 10.0	ug/kg	
Chloroform	< 5.0	ug/kg	
Chloromethane	< 10.0	ug/kg	
1,1-Dichloroethane	< 5.0	ug/kg	
1,2-Dichloroethane	< 5.0	ug/kg	
1,1-Dichloroethene	< 5.0	ug/kg	
cis-1,2-Dichloroethene	< 5.0	ug/kg	
trans-1,2-Dichloroethene	< 5.0	ug/kg	
1,2-Dichloropropane	< 5.0	ug/kg	
cis-1,3-Dichloropropene	< 5.0	ug/kg	
trans-1,3-Dichloropropene	< 5.0	ug/kg	
Ethyl benzene	< 5.0	ug/kg	
2-Hexanone	< 10.0	ug/kg	
4-Methyl-2-pentanone	< 10.0	ug/kg	
Methylene chloride	< 5.0	ug/kg	
MTBE	< 5.0	ug/kg	
Styrene	< 5.0	ug/kg	
1,1,2,2-Tetrachloroethane	< 5.0	ug/kg	
Tetrachloroethene	< 5.0	ug/kg	
Toluene	< 5.0	ug/kg	
1,1,1-Trichloroethane	< 5.0	ug/kg	
1,1,2-Trichloroethane	< 5.0	ug/kg	
Trichloroethene	< 5.0	ug/kg	
Vinyl Acetate	< 10.0	ug/kg	
Vinyl Chloride	< 10.0	ug/kg	
Xylenes (total)	< 5.0	ug/kg	



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## Analytical Report

Client: CLAYTON GROUP SERVICES  
Project ID: 15-04183  
Sample Number: 34619  
Sample Description: B-20A/0-2  
Lab File ID: 34608-30

Date Received: 08/12/04  
Date Taken: 08/10/04  
Time Taken: 16:05  
Date Reported: 08/20/04

Analyte	Result	Units	Flags
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### Polynuclear Aromatic Compounds Method 3540C/8270C

Preparation Date: 08/16/04

Analysis Date: 08/18/04

Naphthalene	170	ug/kg	
Acenaphthylene	< 50	ug/kg	
Acenaphthene	< 50	ug/kg	
Fluorene	< 50	ug/kg	
Phenanthrene	1,200	ug/kg	
Anthracene	108	ug/kg	
Fluoranthene	1,170	ug/kg	
Pyrene	1,180	ug/kg	
Benzo[a]anthracene	675	ug/kg	
Chrysene	779	ug/kg	
Benzo[b]fluoranthene	683	ug/kg	
Benzo[k]fluoranthene	540	ug/kg	
Benzo[a]pyrene	706	ug/kg	
Indeno[1,2,3-cd]pyrene	440	ug/kg	
Dibenz[a,h]anthracene	127	ug/kg	
Benzo[g,h,i]perylene	370	ug/kg	

Analyte	Result	Units	Date Analyzed	Method
pH @ 25°C (1:10)	9.46	units	08/13/04	9045C
<b>Total Metals</b>				
Arsenic	14.7	mg/kg	08/17/04	3050B/6010B
Barium	106	mg/kg	08/17/04	3050B/6010B
Cadmium	2.5	mg/kg	08/17/04	3050B/6010B
Chromium	18.8	mg/kg	08/17/04	3050B/6010B
Lead	513	mg/kg	08/17/04	3050B/6010B
Mercury	0.13	mg/kg	08/13/04	7470A
Selenium	<0.2	mg/kg	08/17/04	3050B/6010B
Silver	3.0	mg/kg	08/17/04	3050B/6010B
<b>TCLP Metals</b>				
Arsenic	0.003	mg/L	08/17/04	3010A/6010B
Barium	<1.0	mg/L	08/17/04	3010A/6010B
Cadmium	<0.001	mg/L	08/17/04	3010A/6010B
Chromium	0.007	mg/L	08/17/04	3010A/6010B
Lead	<0.002	mg/L	08/17/04	3010A/6010B
Mercury	<0.0005	mg/L	08/13/04	7470A
Selenium	<0.002	mg/L	08/17/04	3010A/6010B
Silver	<0.001	mg/L	08/17/04	3010A/6010B



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IL ELAP / NELAC Accreditation # 100292

## Analytical Report

Client: CLAYTON GROUP SERVICES  
Project ID: 15-04183  
Sample Number: 34620  
Sample Description: B-20B/2-4  
Lab File ID: 34608-30

Date Received: 08/12/04  
Date Taken: 08/10/04  
Time Taken: 16:10  
Date Reported: 08/20/04

Analyte	Result	Units	Flags
Solids, Total	84.09	%	

### Volatile Organic Compounds Method 5035A/8260B

Analysis Date: 08/18/04

Acetone	< 10.0	ug/kg	
Benzene	< 5.0	ug/kg	
Bromodichloromethane	< 5.0	ug/kg	
Bromoform	< 5.0	ug/kg	
Bromomethane	< 10.0	ug/kg	
2-Butanone	< 10.0	ug/kg	
Carbon disulfide	< 5.0	ug/kg	
Carbon tetrachloride	< 5.0	ug/kg	
Chlorobenzene	< 5.0	ug/kg	
Chlorodibromomethane	< 5.0	ug/kg	
Chloroethane	< 10.0	ug/kg	
Chloroform	< 5.0	ug/kg	
Chloromethane	< 10.0	ug/kg	
1,1-Dichloroethane	< 5.0	ug/kg	
1,2-Dichloroethane	< 5.0	ug/kg	
1,1-Dichloroethene	< 5.0	ug/kg	
cis-1,2-Dichloroethene	< 5.0	ug/kg	
trans-1,2-Dichloroethene	< 5.0	ug/kg	
1,2-Dichloropropane	< 5.0	ug/kg	
cis-1,3-Dichloropropene	< 5.0	ug/kg	
trans-1,3-Dichloropropene	< 5.0	ug/kg	
Ethyl benzene	< 5.0	ug/kg	
2-Hexanone	< 10.0	ug/kg	
4-Methyl-2-pentanone	< 10.0	ug/kg	
Methylene chloride	< 5.0	ug/kg	
MTBE	< 5.0	ug/kg	
Styrene	< 5.0	ug/kg	
1,1,2,2-Tetrachloroethane	< 5.0	ug/kg	
Tetrachloroethene	< 5.0	ug/kg	
Toluene	< 5.0	ug/kg	
1,1,1-Trichloroethane	< 5.0	ug/kg	
1,1,2-Trichloroethane	< 5.0	ug/kg	
Trichloroethene	< 5.0	ug/kg	
Vinyl Acetate	< 10.0	ug/kg	
Vinyl Chloride	< 10.0	ug/kg	
Xylenes (total)	< 5.0	ug/kg	



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## Analytical Report

Client: CLAYTON GROUP SERVICES  
Project ID: 15-04183  
Sample Number: 34620  
Sample Description: B-20B/2-4  
Lab File ID: 34608-30

Date Received: 08/12/04  
Date Taken: 08/10/04  
Time Taken: 16:10  
Date Reported: 08/20/04

Analyte	Result	Units	Flags
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### Polynuclear Aromatic Compounds Method 3540C/8270C

Preparation Date: 08/16/04

Analysis Date: 08/18/04

Naphthalene	150	ug/kg	
Acenaphthylene	< 50	ug/kg	
Acenaphthene	< 50	ug/kg	
Fluorene	< 50	ug/kg	
Phenanthrene	363	ug/kg	
Anthracene	< 50	ug/kg	
Fluoranthene	242	ug/kg	
Pyrene	262	ug/kg	
Benzo[a]anthracene	151	ug/kg	
Chrysene	166	ug/kg	
Benzo[b]fluoranthene	134	ug/kg	
Benzo[k]fluoranthene	126	ug/kg	
Benzo[a]pyrene	174	ug/kg	
Indeno[1,2,3-cd]pyrene	95	ug/kg	
Dibenz[a,h]anthracene	27	ug/kg	
Benzo[g,h,i]perylene	83	ug/kg	

Analyte	Result	Units	Date Analyzed	Method
pH @ 25°C (1:10)	8.76	units	08/13/04	9045C
<b>Total Metals</b>				
Arsenic	14.5	mg/kg	08/17/04	3050B/6010B
Barium	58.9	mg/kg	08/17/04	3050B/6010B
Cadmium	4.0	mg/kg	08/17/04	3050B/6010B
Chromium	7.2	mg/kg	08/17/04	3050B/6010B
Lead	156	mg/kg	08/17/04	3050B/6010B
Mercury	0.06	mg/kg	08/13/04	7470A
Selenium	<0.2	mg/kg	08/17/04	3050B/6010B
Silver	0.7	mg/kg	08/17/04	3050B/6010B
<b>TCLP Metals</b>				
Arsenic	<0.002	mg/L	08/17/04	3010A/6010B
Barium	<1.0	mg/L	08/17/04	3010A/6010B
Cadmium	0.014	mg/L	08/17/04	3010A/6010B
Chromium	<0.001	mg/L	08/17/04	3010A/6010B
Lead	0.009	mg/L	08/17/04	3010A/6010B
Mercury	<0.0005	mg/L	08/13/04	7470A
Selenium	<0.002	mg/L	08/17/04	3010A/6010B
Silver	<0.001	mg/L	08/17/04	3010A/6010B



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## Analytical Report

Client: CLAYTON GROUP SERVICES  
Project ID: 15-04183  
Sample Number: 34623  
Sample Description: B-21/MW-6A  
Lab File ID: 34608-30

Date Received: 08/12/04  
Date Taken: 08/11/04  
Time Taken: 8:40  
Date Reported: 08/20/04

Analyte	Result	Units	Flags
Solids, Total	79.39	%	

### Volatile Organic Compounds Method 5035A/8260B

Analysis Date: 08/18/04

Acetone	< 10.0	ug/kg	
Benzene	< 5.0	ug/kg	
Bromodichloromethane	< 5.0	ug/kg	
Bromoform	< 5.0	ug/kg	
Bromomethane	< 10.0	ug/kg	
2-Butanone	< 10.0	ug/kg	
Carbon disulfide	< 5.0	ug/kg	
Carbon tetrachloride	< 5.0	ug/kg	
Chlorobenzene	< 5.0	ug/kg	
Chlorodibromomethane	< 5.0	ug/kg	
Chloroethane	< 10.0	ug/kg	
Chloroform	< 5.0	ug/kg	
Chloromethane	< 10.0	ug/kg	
1,1-Dichloroethane	< 5.0	ug/kg	
1,2-Dichloroethane	< 5.0	ug/kg	
1,1-Dichloroethene	< 5.0	ug/kg	
cis-1,2-Dichloroethene	< 5.0	ug/kg	
trans-1,2-Dichloroethene	< 5.0	ug/kg	
1,2-Dichloropropane	< 5.0	ug/kg	
cis-1,3-Dichloropropene	< 5.0	ug/kg	
trans-1,3-Dichloropropene	< 5.0	ug/kg	
Ethyl benzene	< 5.0	ug/kg	
2-Hexanone	< 10.0	ug/kg	
4-Methyl-2-pentanone	< 10.0	ug/kg	
Methylene chloride	< 5.0	ug/kg	
MTBE	< 5.0	ug/kg	
Styrene	< 5.0	ug/kg	
1,1,2,2-Tetrachloroethane	< 5.0	ug/kg	
Tetrachloroethene	< 5.0	ug/kg	
Toluene	< 5.0	ug/kg	
1,1,1-Trichloroethane	< 5.0	ug/kg	
1,1,2-Trichloroethane	< 5.0	ug/kg	
Trichloroethene	< 5.0	ug/kg	
Vinyl Acetate	< 10.0	ug/kg	
Vinyl Chloride	< 10.0	ug/kg	
Xylenes (total)	< 5.0	ug/kg	



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**Analytical Report**

Client: CLAYTON GROUP SERVICES  
Project ID: 15-04183  
Sample Number: 34625  
Sample Description: B-22A/4-6  
Lab File ID: 34608-30

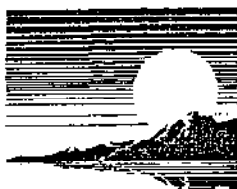
Date Received: 08/12/04  
Date Taken: 08/11/04  
Time Taken: 11:25  
Date Reported: 08/20/04

Analyte	Result	Units	Flags
Solids, Total	83.31	%	

**Volatile Organic Compounds Method 5035A/8260B**

Analysis Date: 08/18/04

Acetone	< 10.0	ug/kg	
Benzene	< 5.0	ug/kg	
Bromodichloromethane	< 5.0	ug/kg	
Bromoform	< 5.0	ug/kg	
Bromomethane	< 10.0	ug/kg	
2-Butanone	< 10.0	ug/kg	
Carbon disulfide	< 5.0	ug/kg	
Carbon tetrachloride	< 5.0	ug/kg	
Chlorobenzene	< 5.0	ug/kg	
Chlorodibromomethane	< 5.0	ug/kg	
Chloroethane	< 10.0	ug/kg	
Chloroform	< 5.0	ug/kg	
Chloromethane	< 10.0	ug/kg	
1,1-Dichloroethane	< 5.0	ug/kg	
1,2-Dichloroethane	< 5.0	ug/kg	
1,1-Dichloroethene	< 5.0	ug/kg	
cis-1,2-Dichloroethene	< 5.0	ug/kg	
trans-1,2-Dichloroethene	< 5.0	ug/kg	
1,2-Dichloropropane	< 5.0	ug/kg	
cis-1,3-Dichloropropene	< 5.0	ug/kg	
trans-1,3-Dichloropropene	< 5.0	ug/kg	
Ethyl benzene	< 5.0	ug/kg	
2-Hexanone	< 10.0	ug/kg	
4-Methyl-2-pentanone	< 10.0	ug/kg	
Methylene chloride	< 5.0	ug/kg	
MTBE	< 5.0	ug/kg	
Styrene	< 5.0	ug/kg	
1,1,2,2-Tetrachloroethane	< 5.0	ug/kg	
Tetrachloroethene	< 5.0	ug/kg	
Toluene	< 5.0	ug/kg	
1,1,1-Trichloroethane	< 5.0	ug/kg	
1,1,2-Trichloroethane	< 5.0	ug/kg	
Trichloroethene	< 5.0	ug/kg	
Vinyl Acetate	< 10.0	ug/kg	
Vinyl Chloride	< 10.0	ug/kg	
Xylenes (total)	< 5.0	ug/kg	



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## Analytical Report

Client:	CLAYTON GROUP SERVICES	Date Received:	08/12/04
Project ID:	15-04183	Date Taken:	08/11/04
Sample Number:	34625	Time Taken:	11:25
Sample Description:	B-22A/4-6	Date Reported:	08/20/04
Lab File ID:	34608-30		

Analyte	Result	Units	Flags
Polynuclear Aromatic Compounds Method 3540C/8270C			
Preparation Date:	08/16/04		
Analysis Date:	08/18/04		
Naphthalene	< 25	ug/kg	
Acenaphthylene	< 50	ug/kg	
Acenaphthene	< 50	ug/kg	
Fluorene	< 50	ug/kg	
Phenanthrene	51	ug/kg	
Anthracene	< 50	ug/kg	
Fluoranthene	< 50	ug/kg	
Pyrene	< 50	ug/kg	
Benzo[a]anthracene	< 8.7	ug/kg	
Chrysene	< 50	ug/kg	
Benzo[b]fluoranthene	< 11	ug/kg	
Benzo[k]fluoranthene	< 11	ug/kg	
Benzo[a]pyrene	< 15	ug/kg	
Indeno[1,2,3-cd]pyrene	< 29	ug/kg	
Dibenz[a,h]anthracene	< 20	ug/kg	
Benzo[g,h,i]perylene	< 50	ug/kg	



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## Analytical Report

Client: CLAYTON GROUP SERVICES  
Project ID: 15-04183  
Sample Number: 34626  
Sample Description: B-23A/0-2  
Lab File ID: 34608-30

Date Received: 08/12/04  
Date Taken: 08/11/04  
Time Taken: 11:30  
Date Reported: 08/20/04

Analyte	Result	Units	Flags
Solids, Total	81.73	%	

### Volatile Organic Compounds Method 5035A/8260B

Analysis Date: 08/18/04

Acetone	< 10.0	ug/kg	
Benzene	< 5.0	ug/kg	
Bromodichloromethane	< 5.0	ug/kg	
Bromoform	< 5.0	ug/kg	
Bromomethane	< 10.0	ug/kg	
2-Butanone	< 10.0	ug/kg	
Carbon disulfide	< 5.0	ug/kg	
Carbon tetrachloride	< 5.0	ug/kg	
Chlorobenzene	< 5.0	ug/kg	
Chlorodibromomethane	< 5.0	ug/kg	
Chloroethane	< 10.0	ug/kg	
Chloroform	< 5.0	ug/kg	
Chloromethane	< 10.0	ug/kg	
1,1-Dichloroethane	< 5.0	ug/kg	
1,2-Dichloroethane	< 5.0	ug/kg	
1,1-Dichloroethene	< 5.0	ug/kg	
cis-1,2-Dichloroethene	< 5.0	ug/kg	
trans-1,2-Dichloroethene	< 5.0	ug/kg	
1,2-Dichloropropane	< 5.0	ug/kg	
cis-1,3-Dichloropropene	< 5.0	ug/kg	
trans-1,3-Dichloropropene	< 5.0	ug/kg	
Ethyl benzene	< 5.0	ug/kg	
2-Hexanone	< 10.0	ug/kg	
4-Methyl-2-pentanone	< 10.0	ug/kg	
Methylene chloride	< 5.0	ug/kg	
MTBE	< 5.0	ug/kg	
Styrene	< 5.0	ug/kg	
1,1,2,2-Tetrachloroethane	< 5.0	ug/kg	
Tetrachloroethene	< 5.0	ug/kg	
Toluene	< 5.0	ug/kg	
1,1,1-Trichloroethane	< 5.0	ug/kg	
1,1,2-Trichloroethane	< 5.0	ug/kg	
Trichloroethene	< 5.0	ug/kg	
Vinyl Acetate	< 10.0	ug/kg	
Vinyl Chloride	< 10.0	ug/kg	
Xylenes (total)	< 5.0	ug/kg	



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## Analytical Report

Client: CLAYTON GROUP SERVICES  
Project ID: 15-04183  
Sample Number: 34626  
Sample Description: B-23A/0-2  
Lab File ID: 34608-30

Date Received: 08/12/04  
Date Taken: 08/11/04  
Time Taken: 11:30  
Date Reported: 08/20/04

Analyte	Result	Units	Flags
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### Polynuclear Aromatic Compounds Method 3540C/8270C

Preparation Date: 08/16/04

Analysis Date: 08/19/04

Naphthalene	< 25	ug/kg	
Acenaphthylene	< 50	ug/kg	
Acenaphthene	< 50	ug/kg	
Fluorene	< 50	ug/kg	
Phenanthrene	< 50	ug/kg	
Anthracene	< 50	ug/kg	
Fluoranthene	< 50	ug/kg	
Pyrene	< 50	ug/kg	
Benzo[a]anthracene	< 8.7	ug/kg	
Chrysene	< 50	ug/kg	
Benzo[b]fluoranthene	< 11	ug/kg	
Benzo[k]fluoranthene	< 11	ug/kg	
Benzo[a]pyrene	< 15	ug/kg	
Indeno[1,2,3-cd]pyrene	< 29	ug/kg	
Dibenz[a,h]anthracene	< 20	ug/kg	
Benzo[g,h,i]perylene	< 50	ug/kg	



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## Analytical Report

Client: CLAYTON GROUP SERVICES  
Project ID: 15-04183  
Sample Number: 34627  
Sample Description: B-23B/8-10  
Lab File ID: 34608-30

Date Received: 08/12/04  
Date Taken: 08/11/04  
Time Taken: 11:35  
Date Reported: 08/20/04

Analyte	Result	Units	Flags
Solids, Total	85.41	%	

### Volatile Organic Compounds Method 5035A/8260B

Analysis Date: 08/18/04

Acetone	< 10.0	ug/kg	
Benzene	< 5.0	ug/kg	
Bromodichloromethane	< 5.0	ug/kg	
Bromoform	< 5.0	ug/kg	
Bromomethane	< 10.0	ug/kg	
2-Butanone	< 10.0	ug/kg	
Carbon disulfide	< 5.0	ug/kg	
Carbon tetrachloride	< 5.0	ug/kg	
Chlorobenzene	< 5.0	ug/kg	
Chlorodibromomethane	< 5.0	ug/kg	
Chloroethane	< 10.0	ug/kg	
Chloroform	< 5.0	ug/kg	
Chloromethane	< 10.0	ug/kg	
1,1-Dichloroethane	< 5.0	ug/kg	
1,2-Dichloroethane	< 5.0	ug/kg	
1,1-Dichloroethene	< 5.0	ug/kg	
cis-1,2-Dichloroethene	< 5.0	ug/kg	
trans-1,2-Dichloroethene	< 5.0	ug/kg	
1,2-Dichloropropane	< 5.0	ug/kg	
cis-1,3-Dichloropropene	< 5.0	ug/kg	
trans-1,3-Dichloropropene	< 5.0	ug/kg	
Ethyl benzene	< 5.0	ug/kg	
2-Hexanone	< 10.0	ug/kg	
4-Methyl-2-pentanone	< 10.0	ug/kg	
Methylene chloride	< 5.0	ug/kg	
MTBE	< 5.0	ug/kg	
Styrene	< 5.0	ug/kg	
1,1,2,2-Tetrachloroethane	< 5.0	ug/kg	
Tetrachloroethene	< 5.0	ug/kg	
Toluene	< 5.0	ug/kg	
1,1,1-Trichloroethane	< 5.0	ug/kg	
1,1,2-Trichloroethane	< 5.0	ug/kg	
Trichloroethene	< 5.0	ug/kg	
Vinyl Acetate	< 10.0	ug/kg	
Vinyl Chloride	< 10.0	ug/kg	
Xylenes (total)	< 5.0	ug/kg	



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**Analytical Report**

Client: CLAYTON GROUP SERVICES  
Project ID: 15-04183  
Sample Number: 34627  
Sample Description: B-23B/8-10  
Lab File ID: 34608-30

Date Received: 08/12/04  
Date Taken: 08/11/04  
Time Taken: 11:35  
Date Reported: 08/20/04

Analyte	Result	Units	Flags
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**Polynuclear Aromatic Compounds Method 3540C/8270C**

Preparation Date: 08/16/04

Analysis Date: 08/19/04

Naphthalene	< 25	ug/kg	
Acenaphthylene	< 50	ug/kg	
Acenaphthene	< 50	ug/kg	
Fluorene	< 50	ug/kg	
Phenanthrene	< 50	ug/kg	
Anthracene	< 50	ug/kg	
Fluoranthene	< 50	ug/kg	
Pyrene	< 50	ug/kg	
Benzo[a]anthracene	< 8.7	ug/kg	
Chrysene	< 50	ug/kg	
Benzo[b]fluoranthene	< 11	ug/kg	
Benzo[k]fluoranthene	< 11	ug/kg	
Benzo[a]pyrene	< 15	ug/kg	
Indeno[1,2,3-cd]pyrene	< 29	ug/kg	
Dibenz[a,h]anthracene	< 20	ug/kg	
Benzo[g,h,i]perylene	< 50	ug/kg	



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## Analytical Report

Client: CLAYTON GROUP SERVICES  
Project ID: 15-04183  
Sample Number: 34621  
Sample Description: B-24A/4-6  
Lab File ID: 34608-30

Date Received: 08/12/04  
Date Taken: 08/11/04  
Time Taken: 8:27  
Date Reported: 08/20/04

Analyte	Result	Units	Flags
Solids, Total	77.10	%	

### Volatile Organic Compounds Method 5035A/8260B

Analysis Date: 08/18/04

Acetone	< 10.0	ug/kg	
Benzene	< 5.0	ug/kg	
Bromodichloromethane	< 5.0	ug/kg	
Bromoform	< 5.0	ug/kg	
Bromomethane	< 10.0	ug/kg	
2-Butanone	< 10.0	ug/kg	
Carbon disulfide	< 5.0	ug/kg	
Carbon tetrachloride	< 5.0	ug/kg	
Chlorobenzene	< 5.0	ug/kg	
Chlorodibromomethane	< 5.0	ug/kg	
Chloroethane	< 10.0	ug/kg	
Chloroform	< 5.0	ug/kg	
Chloromethane	< 10.0	ug/kg	
1,1-Dichloroethane	< 5.0	ug/kg	
1,2-Dichloroethane	< 5.0	ug/kg	
1,1-Dichloroethene	< 5.0	ug/kg	
cis-1,2-Dichloroethene	< 5.0	ug/kg	
trans-1,2-Dichloroethene	< 5.0	ug/kg	
1,2-Dichloropropane	< 5.0	ug/kg	
cis-1,3-Dichloropropene	< 5.0	ug/kg	
trans-1,3-Dichloropropene	< 5.0	ug/kg	
Ethyl benzene	< 5.0	ug/kg	
2-Hexanone	< 10.0	ug/kg	
4-Methyl-2-pentanone	< 10.0	ug/kg	
Methylene chloride	< 5.0	ug/kg	
MTBE	< 5.0	ug/kg	
Styrene	< 5.0	ug/kg	
1,1,2,2-Tetrachloroethane	< 5.0	ug/kg	
Tetrachloroethene	< 5.0	ug/kg	
Toluene	< 5.0	ug/kg	
1,1,1-Trichloroethane	< 5.0	ug/kg	
1,1,2-Trichloroethane	< 5.0	ug/kg	
Trichloroethene	< 5.0	ug/kg	
Vinyl Acetate	< 10.0	ug/kg	
Vinyl Chloride	< 10.0	ug/kg	
Xylenes (total)	< 5.0	ug/kg	



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## Analytical Report

Client: CLAYTON GROUP SERVICES  
Project ID: 15-04183  
Sample Number: 34621  
Sample Description: B-24A/4-6  
Lab File ID: 34608-30

Date Received: 08/12/04  
Date Taken: 08/11/04  
Time Taken: 8:27  
Date Reported: 08/20/04

Analyte	Result	Units	Flags
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### Polynuclear Aromatic Compounds Method 3540C/8270C

Preparation Date: 08/16/04

Analysis Date: 08/18/04

Naphthalene	43	ug/kg	
Acenaphthylene	< 50	ug/kg	
Acenaphthene	< 50	ug/kg	
Fluorene	< 50	ug/kg	
Phenanthrene	< 50	ug/kg	
Anthracene	< 50	ug/kg	
Fluoranthene	< 50	ug/kg	
Pyrene	< 50	ug/kg	
Benzo[a]anthracene	< 8.7	ug/kg	
Chrysene	< 50	ug/kg	
Benzo[b]fluoranthene	< 11	ug/kg	
Benzo[k]fluoranthene	< 11	ug/kg	
Benzo[a]pyrene	< 15	ug/kg	
Indeno[1,2,3-cd]pyrene	< 29	ug/kg	
Dibenz[a,h]anthracene	< 20	ug/kg	
Benzo[g,h,i]perylene	< 50	ug/kg	



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## Analytical Report

Client: CLAYTON GROUP SERVICES  
Project ID: 15-04183  
Sample Number: 34622  
Sample Description: B-24B/6-8  
Lab File ID: 34608-30

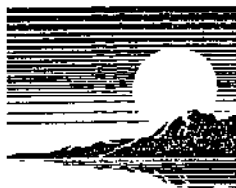
Date Received: 08/12/04  
Date Taken: 08/11/04  
Time Taken: 8:33  
Date Reported: 08/20/04

Analyte	Result	Units	Flags
Solids, Total	78.78	%	

### Volatile Organic Compounds Method 5035A/8260B

Analysis Date: 08/18/04

Acetone	< 10.0	ug/kg	
Benzene	< 5.0	ug/kg	
Bromodichloromethane	< 5.0	ug/kg	
Bromoform	< 5.0	ug/kg	
Bromomethane	< 10.0	ug/kg	
2-Butanone	< 10.0	ug/kg	
Carbon disulfide	< 5.0	ug/kg	
Carbon tetrachloride	< 5.0	ug/kg	
Chlorobenzene	< 5.0	ug/kg	
Chlorodibromomethane	< 5.0	ug/kg	
Chloroethane	< 10.0	ug/kg	
Chloroform	< 5.0	ug/kg	
Chloromethane	< 10.0	ug/kg	
1,1-Dichloroethane	< 5.0	ug/kg	
1,2-Dichloroethane	< 5.0	ug/kg	
1,1-Dichloroethene	< 5.0	ug/kg	
cis-1,2-Dichloroethene	< 5.0	ug/kg	
trans-1,2-Dichloroethene	< 5.0	ug/kg	
1,2-Dichloropropane	< 5.0	ug/kg	
cis-1,3-Dichloropropene	< 5.0	ug/kg	
trans-1,3-Dichloropropene	< 5.0	ug/kg	
Ethyl benzene	< 5.0	ug/kg	
2-Hexanone	< 10.0	ug/kg	
4-Methyl-2-pentanone	< 10.0	ug/kg	
Methylene chloride	< 5.0	ug/kg	
MTBE	< 5.0	ug/kg	
Styrene	< 5.0	ug/kg	
1,1,2,2-Tetrachloroethane	< 5.0	ug/kg	
Tetrachloroethene	< 5.0	ug/kg	
Toluene	< 5.0	ug/kg	
1,1,1-Trichloroethane	< 5.0	ug/kg	
1,1,2-Trichloroethane	< 5.0	ug/kg	
Trichloroethene	< 5.0	ug/kg	
Vinyl Acetate	< 10.0	ug/kg	
Vinyl Chloride	< 10.0	ug/kg	
Xylenes (total)	< 5.0	ug/kg	



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## Analytical Report

Client: CLAYTON GROUP SERVICES  
Project ID: 15-04183  
Sample Number: 34622  
Sample Description: B-24B/6-8  
Lab File ID: 34608-30

Date Received: 08/12/04  
Date Taken: 08/11/04  
Time Taken: 8:33  
Date Reported: 08/20/04

Analyte	Result	Units	Flags
<b>Polynuclear Aromatic Compounds Method 3540C/8270C</b>			
Preparation Date:	08/16/04		
Analysis Date:	08/18/04		
Naphthalene	< 25	ug/kg	
Acenaphthylene	< 50	ug/kg	
Acenaphthene	< 50	ug/kg	
Fluorene	< 50	ug/kg	
Phenanthrene	< 50	ug/kg	
Anthracene	< 50	ug/kg	
Fluoranthene	< 50	ug/kg	
Pyrene	< 50	ug/kg	
Benzo[a]anthracene	< 8.7	ug/kg	
Chrysene	< 50	ug/kg	
Benzo[b]fluoranthene	< 11	ug/kg	
Benzo[k]fluoranthene	< 11	ug/kg	
Benzo[a]pyrene	< 15	ug/kg	
Indeno[1,2,3-cd]pyrene	< 29	ug/kg	
Dibenz[a,h]anthracene	< 20	ug/kg	
Benzo[g,h,i]perylene	< 50	ug/kg	



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## Analytical Report

Client: CLAYTON GROUP SERVICES  
Project ID: 15-04183  
Sample Number: 34628  
Sample Description: B-25A/2-4  
Lab File ID: 34608-30

Date Received: 08/12/04  
Date Taken: 08/10/04  
Time Taken: 14:25  
Date Reported: 08/20/04

Analyte	Result	Units	Flags
Solids, Total	88.25	%	

### Volatile Organic Compounds Method 5035A/8260B

Analysis Date: 08/18/04

Acetone	< 10.0	ug/kg	
Benzene	< 5.0	ug/kg	
Bromodichloromethane	< 5.0	ug/kg	
Bromoform	< 5.0	ug/kg	
Bromomethane	< 10.0	ug/kg	
2-Butanone	< 10.0	ug/kg	
Carbon disulfide	< 5.0	ug/kg	
Carbon tetrachloride	< 5.0	ug/kg	
Chlorobenzene	< 5.0	ug/kg	
Chlorodibromomethane	< 5.0	ug/kg	
Chloroethane	< 10.0	ug/kg	
Chloroform	< 5.0	ug/kg	
Chloromethane	< 10.0	ug/kg	
1,1-Dichloroethane	< 5.0	ug/kg	
1,2-Dichloroethane	< 5.0	ug/kg	
1,1-Dichloroethene	< 5.0	ug/kg	
cis-1,2-Dichloroethene	< 5.0	ug/kg	
trans-1,2-Dichloroethene	< 5.0	ug/kg	
1,2-Dichloropropane	< 5.0	ug/kg	
cis-1,3-Dichloropropene	< 5.0	ug/kg	
trans-1,3-Dichloropropene	< 5.0	ug/kg	
Ethyl benzene	< 5.0	ug/kg	
2-Hexanone	< 10.0	ug/kg	
4-Methyl-2-pentanone	< 10.0	ug/kg	
Methylene chloride	< 5.0	ug/kg	
MTBE	< 5.0	ug/kg	
Styrene	< 5.0	ug/kg	
1,1,2,2-Tetrachloroethane	< 5.0	ug/kg	
Tetrachloroethene	< 5.0	ug/kg	
Toluene	< 5.0	ug/kg	
1,1,1-Trichloroethane	< 5.0	ug/kg	
1,1,2-Trichloroethane	< 5.0	ug/kg	
Trichloroethene	< 5.0	ug/kg	
Vinyl Acetate	< 10.0	ug/kg	
Vinyl Chloride	< 10.0	ug/kg	
Xylenes (total)	< 5.0	ug/kg	



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## Analytical Report

Client: CLAYTON GROUP SERVICES  
Project ID: 15-04183  
Sample Number: 34628  
Sample Description: B-25A/2-4  
Lab File ID: 34608-30

Date Received: 08/12/04  
Date Taken: 08/10/04  
Time Taken: 14:25  
Date Reported: 08/20/04

Analyte	Result	Units	Flags
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### Polynuclear Aromatic Compounds Method 3540C/8270C

Preparation Date: 08/16/04

Analysis Date: 08/19/04

Naphthalene	3,530	ug/kg	
Acenaphthylene	3,820	ug/kg	
Acenaphthene	2,340	ug/kg	
Fluorene	6,250	ug/kg	
Phenanthrene	78,800	ug/kg	
Anthracene	8,890	ug/kg	
Fluoranthene	71,600	ug/kg	
Pyrene	73,700	ug/kg	
Benzo[a]anthracene	17,000	ug/kg	
Chrysene	15,000	ug/kg	
Benzo[b]fluoranthene	15,600	ug/kg	
Benzo[k]fluoranthene	9,540	ug/kg	
Benzo[a]pyrene	17,100	ug/kg	
Indeno[1,2,3-cd]pyrene	8,230	ug/kg	
Dibenz[a,h]anthracene	2,330	ug/kg	
Benzo[g,h,i]perylene	6,210	ug/kg	

Analyte	Result	Units	Date Analyzed	Method
pH @ 25°C (1:10)	8.73	units	08/13/04	9045C
<b>Total Metals</b>				
Arsenic	17.2	mg/kg	08/17/04	3050B/6010B
Barium	450	mg/kg	08/17/04	3050B/6010B
Cadmium	1.7	mg/kg	08/17/04	3050B/6010B
Chromium	29.1	mg/kg	08/17/04	3050B/6010B
Lead	852	mg/kg	08/17/04	3050B/6010B
Mercury	1.20	mg/kg	08/16/04	7470A
Selenium	<0.2	mg/kg	08/17/04	3050B/6010B
Silver	0.4	mg/kg	08/17/04	3050B/6010B

### TCLP Metals

Arsenic	0.007	mg/L	08/17/04	3010A/6010B
Barium	<1.0	mg/L	08/17/04	3010A/6010B
Cadmium	0.011	mg/L	08/17/04	3010A/6010B
Chromium	<0.001	mg/L	08/17/04	3010A/6010B
Lead	0.105	mg/L	08/17/04	3010A/6010B
Mercury	<0.0005	mg/L	08/13/04	7470A
Selenium	<0.002	mg/L	08/17/04	3010A/6010B
Silver	<0.001	mg/L	08/17/04	3010A/6010B



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## Analytical Report

Client: CLAYTON GROUP SERVICES  
Project ID: 15-04183  
Sample Number: 24629  
Sample Description: B-25B/6-8  
Lab File ID: 34608-30

Date Received: 08/12/04  
Date Taken: 08/10/04  
Time Taken: 14:32  
Date Reported: 08/20/04

Analyte	Result	Units	Flags
Solids, Total	88.93	%	

### Volatile Organic Compounds Method 5035A/8260B

Analysis Date: 08/18/04

Acetone	< 10.0	ug/kg	
Benzene	< 5.0	ug/kg	
Bromodichloromethane	< 5.0	ug/kg	
Bromoform	< 5.0	ug/kg	
Bromomethane	< 10.0	ug/kg	
2-Butanone	< 10.0	ug/kg	
Carbon disulfide	< 5.0	ug/kg	
Carbon tetrachloride	< 5.0	ug/kg	
Chlorobenzene	< 5.0	ug/kg	
Chlorodibromomethane	< 5.0	ug/kg	
Chloroethane	< 10.0	ug/kg	
Chloroform	< 5.0	ug/kg	
Chloromethane	< 10.0	ug/kg	
1,1-Dichloroethane	< 5.0	ug/kg	
1,2-Dichloroethane	< 5.0	ug/kg	
1,1-Dichloroethene	< 5.0	ug/kg	
cis-1,2-Dichloroethene	< 5.0	ug/kg	
trans-1,2-Dichloroethene	< 5.0	ug/kg	
1,2-Dichloropropane	< 5.0	ug/kg	
cis-1,3-Dichloropropene	< 5.0	ug/kg	
trans-1,3-Dichloropropene	< 5.0	ug/kg	
Ethyl benzene	< 5.0	ug/kg	
2-Hexanone	< 10.0	ug/kg	
4-Methyl-2-pentanone	< 10.0	ug/kg	
Methylene chloride	< 5.0	ug/kg	
MTBE	< 5.0	ug/kg	
Styrene	< 5.0	ug/kg	
1,1,2,2-Tetrachloroethane	< 5.0	ug/kg	
Tetrachloroethene	< 5.0	ug/kg	
Toluene	< 5.0	ug/kg	
1,1,1-Trichloroethane	< 5.0	ug/kg	
1,1,2-Trichloroethane	< 5.0	ug/kg	
Trichloroethene	< 5.0	ug/kg	
Vinyl Acetate	< 10.0	ug/kg	
Vinyl Chloride	< 10.0	ug/kg	
Xylenes (total)	< 5.0	ug/kg	



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## Analytical Report

Client: CLAYTON GROUP SERVICES  
Project ID: 15-04183  
Sample Number: 24629  
Sample Description: B-25B/6-8  
Lab File ID: 34608-30

Date Received: 08/12/04  
Date Taken: 08/10/04  
Time Taken: 14:32  
Date Reported: 08/20/04

Analyte	Result	Units	Flags
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### Polynuclear Aromatic Compounds Method 3540C/8270C

Preparation Date: 08/16/04

Analysis Date: 08/19/04

Naphthalene	766	ug/kg	
Acenaphthylene	533	ug/kg	
Acenaphthene	888	ug/kg	
Fluorene	1,010	ug/kg	
Phenanthrene	10,400	ug/kg	
Anthracene	2,580	ug/kg	
Fluoranthene	16,600	ug/kg	
Pyrene	15,400	ug/kg	
Benzo[a]anthracene	8,620	ug/kg	
Chrysene	8,050	ug/kg	
Benzo[b]fluoranthene	6,940	ug/kg	
Benzo[k]fluoranthene	6,870	ug/kg	
Benzo[a]pyrene	8,860	ug/kg	
Indeno[1,2,3-cd]pyrene	3,980	ug/kg	
Dibenz[a,h]anthracene	1,110	ug/kg	
Benzo[g,h,i]perylene	3,220	ug/kg	

Analyte	Result	Units	Date Analyzed	Method
pH @ 25°C (1:10)	8.35	units	08/13/04	9045C
<b>Total Metals</b>				
Arsenic	15.9	mg/kg	08/17/04	3050B/6010B
Barium	734	mg/kg	08/19/04	3050B/6010B
Cadmium	0.1	mg/kg	08/17/04	3050B/6010B
Chromium	36.8	mg/kg	08/17/04	3050B/6010B
Lead	818	mg/kg	08/17/04	3050B/6010B
Mercury	0.89	mg/kg	08/16/04	7470A
Selenium	0.4	mg/kg	08/17/04	3050B/6010B
Silver	0.4	mg/kg	08/17/04	3050B/6010B
<b>TCLP Metals</b>				
Arsenic	<0.002	mg/L	08/17/04	3010A/6010B
Barium	<1.0	mg/L	08/17/04	3010A/6010B
Cadmium	0.008	mg/L	08/17/04	3010A/6010B
Chromium	<0.001	mg/L	08/17/04	3010A/6010B
Lead	0.100	mg/L	08/17/04	3010A/6010B
Mercury	<0.0005	mg/L	08/13/04	7470A
Selenium	<0.002	mg/L	08/17/04	3010A/6010B
Silver	<0.001	mg/L	08/17/04	3010A/6010B



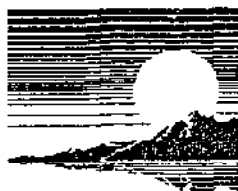
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## Analytical Report

Client:	CLAYTON GROUP SERVICES	Date Received:	08/12/04
Project ID:	15-04183	Date Taken:	08/10/04
Sample Number:	34612	Time Taken:	8:54
Sample Description:	B-27/MW-1A 1.5	Date Reported:	08/20/04
Lab File ID:	34608-30		

Analyte	Result	Units	Date Analyzed	Method
Solids, Total	77.72	%	08/16/04	160.3
pH @ 25°C (1:10)	9.69	units	08/13/04	9045C
<b>Total Metals</b>				
Arsenic	8.1	mg/kg	08/17/04	3050B/6010B
Barium	149	mg/kg	08/17/04	3050B/6010B
Cadmium	16.0	mg/kg	08/17/04	3050B/6010B
Chromium	95.2	mg/kg	08/17/04	3050B/6010B
Lead	2,060	mg/kg	08/17/04	3050B/6010B
Mercury	0.22	mg/kg	08/13/04	7470A
Selenium	<0.2	mg/kg	08/17/04	3050B/6010B
Silver	18.1	mg/kg	08/17/04	3050B/6010B
<b>TCLP Metals</b>				
Arsenic	0.003	mg/L	08/17/04	3010A/6010B
Barium	<1.0	mg/L	08/17/04	3010A/6010B
Cadmium	0.214	mg/L	08/17/04	3010A/6010B
Chromium	0.001	mg/L	08/17/04	3010A/6010B
Lead	2.32	mg/L	08/17/04	3010A/6010B
Mercury	<0.0005	mg/L	08/13/04	7470A
Selenium	<0.002	mg/L	08/17/04	3010A/6010B
Silver	<0.001	mg/L	08/17/04	3010A/6010B



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## Analytical Report

Client: CLAYTON GROUP SERVICES  
Project ID: 15-04183  
Sample Number: 34630  
Sample Description: B-28.MW-5 2-4  
Lab File ID: 34608-30

Date Received: 08/12/04  
Date Taken: 08/10/04  
Time Taken: 15:55  
Date Reported: 08/20/04

Analyte	Result	Units	Flags
Solids, Total	79.92	%	

### Volatile Organic Compounds Method 5035A/8260B

Analysis Date: 08/18/04

Acetone	< 10.0	ug/kg	
Benzene	< 5.0	ug/kg	
Bromodichloromethane	< 5.0	ug/kg	
Bromoform	< 5.0	ug/kg	
Bromomethane	< 10.0	ug/kg	
2-Butanone	< 10.0	ug/kg	
Carbon disulfide	< 5.0	ug/kg	
Carbon tetrachloride	< 5.0	ug/kg	
Chlorobenzene	< 5.0	ug/kg	
Chlorodibromomethane	< 5.0	ug/kg	
Chloroethane	< 10.0	ug/kg	
Chloroform	< 5.0	ug/kg	
Chloromethane	< 10.0	ug/kg	
1,1-Dichloroethane	< 5.0	ug/kg	
1,2-Dichloroethane	< 5.0	ug/kg	
1,1-Dichloroethene	< 5.0	ug/kg	
cis-1,2-Dichloroethene	< 5.0	ug/kg	
trans-1,2-Dichloroethene	< 5.0	ug/kg	
1,2-Dichloropropane	< 5.0	ug/kg	
cis-1,3-Dichloropropene	< 5.0	ug/kg	
trans-1,3-Dichloropropene	< 5.0	ug/kg	
Ethyl benzene	< 5.0	ug/kg	
2-Hexanone	< 10.0	ug/kg	
4-Methyl-2-pentanone	< 10.0	ug/kg	
Methylene chloride	< 5.0	ug/kg	
MTBE	< 5.0	ug/kg	
Styrene	< 5.0	ug/kg	
1,1,2,2-Tetrachloroethane	< 5.0	ug/kg	
Tetrachloroethene	< 5.0	ug/kg	
Toluene	< 5.0	ug/kg	
1,1,1-Trichloroethane	< 5.0	ug/kg	
1,1,2-Trichloroethane	< 5.0	ug/kg	
Trichloroethene	< 5.0	ug/kg	
Vinyl Acetate	< 10.0	ug/kg	
Vinyl Chloride	< 10.0	ug/kg	
Xylenes (total)	< 5.0	ug/kg	



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## Analytical Report

Client: CLAYTON GROUP SERVICES  
Project ID: 15-04183  
Sample Number: 34630  
Sample Description: B-28.MW-5 2-4  
Lab File ID: 34608-30

Date Received: 08/12/04  
Date Taken: 08/10/04  
Time Taken: 15:55  
Date Reported: 08/20/04

Analyte	Result	Units	Flags
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### Polynuclear Aromatic Compounds Method 3540C/8270C

Preparation Date: 08/16/04

Analysis Date: 08/19/04

Naphthalene	721	ug/kg	
Acenaphthylene	91	ug/kg	
Acenaphthene	99	ug/kg	
Fluorene	99	ug/kg	
Phenanthrene	1,510	ug/kg	
Anthracene	494	ug/kg	
Fluoranthene	4,290	ug/kg	
Pyrene	4,740	ug/kg	
Benzo[a]anthracene	3,400	ug/kg	
Chrysene	3,060	ug/kg	
Benzo[b]fluoranthene	3,590	ug/kg	
Benzo[k]fluoranthene	2,660	ug/kg	
Benzo[a]pyrene	4,070	ug/kg	
Indeno[1,2,3-cd]pyrene	2,050	ug/kg	
Dibenz[a,h]anthracene	527	ug/kg	
Benzo[g,h,i]perylene	1,530	ug/kg	

Analyte	Result	Units	Date Analyzed	Method
pH @ 25°C (1:10)	8.95	units	08/13/04	9045C
<b>Total Metals</b>				
Arsenic	24.0	mg/kg	08/17/04	3050B/6010B
Barium	91.8	mg/kg	08/17/04	3050B/6010B
Cadmium	<0.1	mg/kg	08/17/04	3050B/6010B
Chromium	18.3	mg/kg	08/17/04	3050B/6010B
Lead	125	mg/kg	08/17/04	3050B/6010B
Mercury	0.79	mg/kg	08/16/04	7470A
Selenium	<0.2	mg/kg	08/17/04	3050B/6010B
Silver	0.7	mg/kg	08/17/04	3050B/6010B
<b>TCLP Metals</b>				
Arsenic	<0.002	mg/L	08/17/04	3010A/6010B
Barium	<1.0	mg/L	08/17/04	3010A/6010B
Cadmium	<0.001	mg/L	08/17/04	3010A/6010B
Chromium	<0.001	mg/L	08/17/04	3010A/6010B
Lead	<0.002	mg/L	08/17/04	3010A/6010B
Mercury	<0.0005	mg/L	08/13/04	7470A
Selenium	<0.002	mg/L	08/17/04	3010A/6010B
Silver	<0.001	mg/L	08/17/04	3010A/6010B



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## Analytical Report

Client: CLAYTON GROUP SERVICES  
Project ID: 15-04183  
Sample Number: 34624  
Sample Description: GW-22  
Lab File ID: 34608-30

Date Received: 08/12/04  
Date Taken: 08/11/04  
Time Taken: 11:15  
Date Reported: 08/20/04

Analyte	Result	Units	Flags
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### Volatile Organic Compounds Method 5030B/8260B

Analysis Date: 08/17/04

Acetone	< 10.0	ug/L	
Benzene	< 5.0	ug/L	
Bromodichloromethane	< 1.0	ug/L	
Bromoform	< 1.0	ug/L	
Bromomethane	< 5.0	ug/L	
2-Butanone	< 10.0	ug/L	
Carbon disulfide	< 5.0	ug/L	
Carbon tetrachloride	< 5.0	ug/L	
Chlorobenzene	< 5.0	ug/L	
Chlorodibromomethane	< 1.0	ug/L	
Chloroethane	< 10.0	ug/L	
Chloroform	< 1.0	ug/L	
Chloromethane	< 10.0	ug/L	
1,1-Dichloroethane	< 5.0	ug/L	
1,2-Dichloroethane	< 5.0	ug/L	
1,1-Dichloroethene	< 5.0	ug/L	
cis-1,2-Dichloroethene	< 5.0	ug/L	
trans-1,2-Dichloroethene	< 5.0	ug/L	
1,2-Dichloropropane	< 5.0	ug/L	
cis-1,3-Dichloropropene	< 1.0	ug/L	
trans-1,3-Dichloropropene	< 1.0	ug/L	
Ethyl benzene	< 5.0	ug/L	
2-Hexanone	< 10.0	ug/L	
4-Methyl-2-pentanone	< 10.0	ug/L	
Methylene chloride	< 5.0	ug/L	
MTBE	< 5.0	ug/L	
Styrene	< 5.0	ug/L	
1,1,2,2-Tetrachloroethane	< 5.0	ug/L	
Tetrachloroethene	< 5.0	ug/L	
Toluene	< 5.0	ug/L	
1,1,1-Trichloroethane	< 5.0	ug/L	
1,1,2-Trichloroethane	< 5.0	ug/L	
Trichloroethene	< 5.0	ug/L	
Vinyl Acetate	< 10.0	ug/L	
Vinyl Chloride	< 2.0	ug/L	
Xylenes (total)	< 5.0	ug/L	



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**Analytical Report**

Client: CLAYTON GROUP SERVICES  
Project ID: 15-04183  
Sample Number: 34624  
Sample Description: GW-22  
Lab File ID: 34608-30

Date Received: 08/12/04  
Date Taken: 08/11/04  
Time Taken: 11:15  
Date Reported: 08/20/04

Analyte	Result	Units	Flags
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**Polynuclear Aromatic Compounds Method 3510C/8270C**

Preparation Date 08/13/04

Analysis Date: 08/15/04

Naphthalene	< 10	ug/L	
Acenaphthylene	< 10	ug/L	
Acenaphthene	< 10	ug/L	
Fluorene	< 2	ug/L	
Phenanthrene	< 5	ug/L	
Anthracene	< 5	ug/L	
Fluoranthene	< 2	ug/L	
Pyrene	< 2	ug/L	
Benzo[a]anthracene	< 0.13	ug/L	
Chrysene	< 1.5	ug/L	
Benzo[b]fluoranthene	< 0.18	ug/L	
Benzo[k]fluoranthene	< 0.17	ug/L	
Benzo[a]pyrene	< 0.2	ug/L	
Indeno[1,2,3-cd]pyrene	< 0.3	ug/L	
Dibenz[a,h]anthracene	< 0.3	ug/L	
Benzo[g,h,i]perylene	< 0.4	ug/L	



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August 24, 2004

Ms. Marie Mueller  
**CLAYTON GROUP SERVICES INC.**  
3140 Finley Road  
Downers Grove, IL 60515

Project ID: 15-04183  
First Environmental File ID: 35275-77  
Date Received: August 10 and 13, 2004

Dear Ms. Mueller:

The above referenced samples were analyzed as per your request on August 19, 2004.

**PROJECT SUMMARY**

Analyses were performed in accordance with ASTM D2974-87

I thank you for the opportunity to be of service and look forward to working with you again in the future. Should you have any questions regarding any of the enclosed analytical data, please contact me at (630) 778-1200.

Sincerely,

William H. Mottashed  
Project Manager



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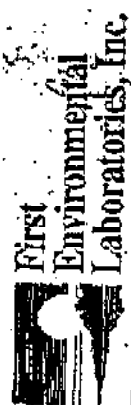
**Analytical Report**

Client: CLAYTON GROUP SERVICES  
Project ID: 15-04183  
Lab File ID: 35275-77

Date Received: 08/10/04  
Date Reported: 08/24/04

FOC Method D2974-87  
Date Analyzed: 08/23/04

<u>Lab Sample Number</u>	<u>Sample Description</u>	<u>Date &amp; Time Taken</u>	<u>FOC %</u>
35275	B-14/MW-2B 8	08/09/04 11:25	2.50
35276	B-8B/6-8	08/12/04 11:46	2.54
35277	B-4B/3	08/12/04 13:40	13.33



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 E-mail: info@firstenv.com  
 IEPA Certification # 160292

# CHAIN OF CUSTODY RECORD

Page 1 of 1 pages

Company Name: Clayton Group Services  
 Street Address: 3140 Foley Rd  
 City: Danvers, Glouc State: IL Zip: 60415  
 Phone: 795-3200 Fax: 795-1130  
 Send Report To: Matrice Johnson  
 Sampled By: Debra Lomson

Project ID: 13-04183									
PO. #:									
Matrix Codes: S = Soil W = Water O = Other									
Date/Time Taken		Sample Description		Matrix		Analysis			
						BTX	PH	8 PCRA Metals	Lab I.D.
2/4	0834	B-10A/4-6		S		X			
	0777	B-12A/1-4		S		X			
	0737	B-11B/1-8		S		X			
	0744	B-12C/10-12		S					
	0755	B-11/4-7A 4-C		S		X			
	1010	G.W.-10		W					
	1525	B-15A/2-4		S		X			
	1570	B-15B/6-8		S		X			
	1572	B-15C/10-12		S					
	1117	B-14/M4-2A S		S			X	X	
	1125	B-14/2-2B 8		S			X	X	
✓	1128	B-14/12-2C 11		S					
									35275 34828
									HOLD
									HOLD
									HOLD
									HOLD

# CHAIN OF CUSTODY RECORD

Page 1 of 2

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E-mail: info@firstenv.com  
IEPA Certification# 100292

Company Name: Clayton Group Services  
Street Address: 3140 Fidelity Rd  
City: Downers Grove State: IL Zip: 60515  
Phone: 795-3200 Fax: 795-1130  
Send Report To: Melie Mueller  
Sampled By: Dellian W. Lamson

Project ID: 15-04183  
P.O. #:

Matrix Codes: S = Soil W = Water O = Other		Analyses										Comments	Lab I.D.
Date/Time Taken	Sample Description	Matrix	VOC	BTEX	PCP & RCP	PH	PAHs	PCBs	PCBs	PCBs			
8/12 0850	B-1A/2-4	S	X		X								
1110	GW-8	W		X		X							
1135	B-5A/4-6	S		X		X							
1142	B-8A/2-4	S		X		X							
1146	B-8B/6-8	FOC		X		X							
1300	B-4A/1.5	S		X		X							
1340	B-4B/3	FOC		X		X							
1355	B-6A/2	S		X		X							
1415	GW-6	W		X		X							
1525	B-7A/1-2	S		X		X							
8/13 0815	GW-3	W	X										
8/13 1020	GW-2	W	X										

Cooler Temperature: 5°C on ice  
Received within 6 hrs. of collection:

Notes and Special Instructions:

Relinquished By: Sam re Date/Time: 8/13 1450 Received By: Sharon M. Ward Date/Time: 8/13 1641  
Relinquished By: \_\_\_\_\_ Date/Time: \_\_\_\_\_ Received By: \_\_\_\_\_ Date/Time: \_\_\_\_\_



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# CHAIN OF CUSTODY RECORD

Company Name: Clayton Group Services  
Street Address: 3140 Finley Rd  
City: Downers Grove State: IL Zip: 60515  
Phone: 795-3200 Fax: 795-1130  
Send Report To: Marie Mueller  
Sampled By: Darren W. Lamson

Matrix Codes: S = Soil W = Water O = Other			Analyses				Comments	Lab ID.
Date/Time Taken	Sample Description	Matrix	8 PCA Metals	TCLP & RCRA	VOCs	PH		
8/10 0712	B-16A/2	S	X	X				34609
0726	B-16B/4	S	X	X				09
0755	B-13A/1.5	S	X	X				16
0757	B-13B/3	S	X	X				11
0854	B-27/MW-1A 1.5	S	X	X				12
1025	B-17/MW-4A 1.5	S	X	X				13
1034	B-17/MW-4B 4	S	X	X				14
1037	B-17/MW-4C 6	S					HOLD	
1546	B-18B/6-8	S	X	X	X			15
1550	B-18A/0-2	S	X	X	X			16
1555	B-19A/0-2	S	X	X	X			17
✓ 1600	B-19B/4-6	S	X	X	X			18

Cooler Temperature: 4°C  
Received within 6 hrs. of collection: \_\_\_\_\_

Notes and Special Instructions: \_\_\_\_\_

Relinquished By: [Signature] Date/Time 8/12 0600 Received By: [Signature] Date/Time 8/12/07 1030  
Relinquished By: \_\_\_\_\_ Date/Time \_\_\_\_\_ Received By: \_\_\_\_\_ Date/Time \_\_\_\_\_



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CHAIN OF CUSTODY RECORD

Page 2 of 3 pgs

Company Name: Clayton Group Services  
Street Address: 3140 Finley Rd  
City: Downers Grove State: IL Zip: 60515  
Phone: 795-3200 Fax: 795-1130  
Send Report To: Morris Mueller  
Sampled By: Darlene W. Lemons

Matrix Codes: S = Soil W = Water O = Other			Analyses										Comments	Lab ID.
Date/Time Taken	Sample Description	Matrix	VOCs	PNA's	6 PCRA Metals	TECP	PCRA Metals	PH						
8/10 1605	B-20A / O-2	S	X	X	X	X	X	X						34619
8/10 1610	B-20B / Z-4	S	X	X	X	X	X	X						20
8/11 0735	B-24C / 10-12	S	X	X	X	X	X	X					HOLD	
0827	B-24A / 4-6	S	X	X	X	X	X	X						21
0833	B-24B / 6-8	S	X	X	X	X	X	X						22
0840	B-21/MW-6A Z-4	S	X	X	X	X	X	X						23
1115	GW-22	W	X	X	X	X	X	X						24
1125	B-22A / 4-6	S	X	X	X	X	X	X						25
1130	B-23A / O-2	S	X	X	X	X	X	X						26
1175	B-23B / 8-10	S	X	X	X	X	X	X						27
1140	B-23C / 12-15	S	X	X	X	X	X	X					HOLD	
1425	B-25A / 2-4	S	X	X	X	X	X	X						28

Cooler Temperature: 4.6 °C  
Received within 6 hrs. of collection: \_\_\_\_\_

Notes and Special Instructions: \_\_\_\_\_

Relinquished By: Sam RZ Date/Time 8/12 0600 Received By: Rylee Date/Time 8/12/04 1030  
Relinquished By: \_\_\_\_\_ Date/Time \_\_\_\_\_ Received By: \_\_\_\_\_ Date/Time \_\_\_\_\_



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E-mail: [info@firstenv.com](mailto:info@firstenv.com)  
EPA Certification# 100391

Project I.D.: 15-04183  
P.O. #:

[illegible]

Cooler Temperature: 54.0°C  
Received within 6 hrs. of collection:           

**Notes and Special Instructions:**

Relinquished By: <u>Alan 42</u>	Date/Time: <u>8/12 0800</u>	Received By: <u>Ry-L</u>	Date/Time: <u>8/12/07 1030</u>
Relinquished By: _____	Date/Time: _____	Received By: _____	Date/Time: _____



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August 24, 2004

Ms. Marie Mueller  
**CLAYTON GROUP SERVICES INC.**  
3140 Finley Road  
Downers Grove, IL 60515

Project ID: 15-04183  
First Environmental File ID: 34867-84  
Date Received: August 13, 2004

Dear Ms. Mueller:

The above referenced project was analyzed as directed on the enclosed chain of custody record.

**PROJECT SUMMARY**

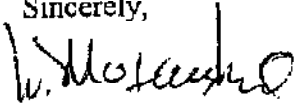
Analyses were performed in accordance with the methods found in the USEPA publication: Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW-846, 3<sup>rd</sup> Edition, December 1996. Specific method references are listed on the Analytical Report.

Results for the soil samples have been expressed on a dry weight basis per method protocol.

All analyses were performed within established holding times, and all Quality Control criteria as outlined in the methods and current IL ELAP/NELAP have been met. QA/QC documentation will remain on file for future reference.

I thank you for the opportunity to be of service and look forward to working with you again in the future. Should you have any questions regarding any of the enclosed analytical data, please contact me at (630) 778-1200.

Sincerely,

  
William H. Mottashed  
Project Manager



# First Environmental Laboratories, Inc.

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## Analytical Report

Client: CLAYTON GROUP SERVICES  
Project ID: 15-04183  
Sample Number: 34867  
Sample Description: B-1A/2-4  
Lab File ID: 34867-84

Date Received: 08/13/04  
Date Taken: 08/12/04  
Time Taken: 8:50  
Date Reported: 08/24/04

Analyte	Result	Units	Flags
Solids, Total	89.42	%	

### Volatile Organic Compounds Method 5035A/8260B

Analysis Date: 08/19/04

Acetone	< 10.0	ug/kg	
Benzene	< 5.0	ug/kg	
Bromodichloromethane	< 5.0	ug/kg	
Bromoform	< 5.0	ug/kg	
Bromomethane	< 10.0	ug/kg	
2-Butanone	< 10.0	ug/kg	
Carbon disulfide	< 5.0	ug/kg	
Carbon tetrachloride	< 5.0	ug/kg	
Chlorobenzene	< 5.0	ug/kg	
Chlorodibromomethane	< 5.0	ug/kg	
Chloroethane	< 10.0	ug/kg	
Chloroform	< 5.0	ug/kg	
Chloromethane	< 10.0	ug/kg	
1,1-Dichloroethane	< 5.0	ug/kg	
1,2-Dichloroethane	< 5.0	ug/kg	
1,1-Dichloroethene	< 5.0	ug/kg	
cis-1,2-Dichloroethene	< 5.0	ug/kg	
trans-1,2-Dichloroethene	< 5.0	ug/kg	
1,2-Dichloropropane	< 5.0	ug/kg	
cis-1,3-Dichloropropene	< 5.0	ug/kg	
trans-1,3-Dichloropropene	< 5.0	ug/kg	
Ethyl benzene	< 5.0	ug/kg	
2-Hexanone	< 10.0	ug/kg	
4-Methyl-2-pentanone	< 10.0	ug/kg	
Methylene chloride	< 5.0	ug/kg	
MTBE	< 5.0	ug/kg	
Styrene	< 5.0	ug/kg	
1,1,2,2-Tetrachloroethane	< 5.0	ug/kg	
Tetrachloroethene	< 5.0	ug/kg	
Toluene	< 5.0	ug/kg	
1,1,1-Trichloroethane	< 5.0	ug/kg	
1,1,2-Trichloroethane	< 5.0	ug/kg	
Trichloroethene	< 5.0	ug/kg	
Vinyl Acetate	< 10.0	ug/kg	
Vinyl Chloride	< 10.0	ug/kg	
Xylenes (total)	< 5.0	ug/kg	



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**Analytical Report**

Client: CLAYTON GROUP SERVICES  
Project ID: 15-04183  
Sample Number: 34867  
Sample Description: B-1A/2-4  
Lab File ID: 34867-84

Date Received: 08/13/04  
Date Taken: 08/12/04  
Time Taken: 8:50  
Date Reported: 08/24/04

Analyte	Result	Units	Date Analyzed	Method
pH @ 25°C (1:10)	11.60	units	08/19/04	9045C
Arsenic	2.8	mg/kg	08/20/04	3050B/6010B
Barium	62.4	mg/kg	08/20/04	3050B/6010B
Cadmium	0.8	mg/kg	08/20/04	3050B/6010B
Chromium	20.6	mg/kg	08/20/04	3050B/6010B
Lead	83.8	mg/kg	08/20/04	3050B/6010B
Mercury	0.14	mg/kg	08/18/04	7470A
Selenium	<0.2	mg/kg	08/20/04	3050B/6010B
Silver	10.8	mg/kg	08/20/04	3050B/6010B
<b>TCLP Metals</b>				
Arsenic	<0.002	mg/L	08/20/04	3010A/6010B
Barium	<1.0	mg/L	08/20/04	3010A/6010B
Cadmium	<0.001	mg/L	08/20/04	3010A/6010B
Chromium	0.194	mg/L	08/20/04	3010A/6010B
Lead	<0.002	mg/L	08/20/04	3010A/6010B
Mercury	<0.0005	mg/L	08/18/04	7470A
Selenium	0.004	mg/L	08/20/04	3010A/6010B
Silver	<0.001	mg/L	08/20/04	3010A/6010B



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**Analytical Report**

Client: CLAYTON GROUP SERVICES  
Project ID: 15-04183  
Sample Number: 34880  
Sample Description: B-2A/2-4  
Lab File ID: 34867-84

Date Received: 08/13/04  
Date Taken: 08/12/04  
Time Taken: 10:45  
Date Reported: 08/24/04

Analyte	Result	Units	Flags
Solids, Total	79.84	%	

**BTEX Method 5035A/8260B**

Analysis Date: 08/20/04

Benzene	< 2.0	ug/kg	
Toluene	< 5.0	ug/kg	
Ethyl benzene	< 5.0	ug/kg	
Xylenes (total)	< 5.0	ug/kg	

**Polynuclear Aromatic Compounds Method 3540C/8270C**

Preparation Date: 08/18/04

Analysis Date: 08/21/04

Naphthalene	< 25	ug/kg	
Acenaphthylene	< 50	ug/kg	
Acenaphthene	< 50	ug/kg	
Fluorene	< 50	ug/kg	
Phenanthrene	< 50	ug/kg	
Anthracene	< 50	ug/kg	
Fluoranthene	< 50	ug/kg	
Pyrene	< 50	ug/kg	
Benzo[a]anthracene	13	ug/kg	
Chrysene	< 50	ug/kg	
Benzo[b]fluoranthene	14	ug/kg	
Benzo[k]fluoranthene	< 11	ug/kg	
Benzo[a]pyrene	< 15	ug/kg	
Indeno[1,2,3-cd]pyrene	< 29	ug/kg	
Dibenz[a,h]anthracene	< 20	ug/kg	
Benzo[g,h,i]perylene	< 50	ug/kg	



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**Analytical Report**

Client: CLAYTON GROUP SERVICES  
Project ID: 15-04183  
Sample Number: 34881  
Sample Description: B-2B/6-8  
Lab File ID: 34867-84

Date Received: 08/13/04  
Date Taken: 08/12/04  
Time Taken: 10:50  
Date Reported: 08/24/04

Analyte	Result	Units	Flags
---------	--------	-------	-------

Solids, Total	79.18	%	
---------------	-------	---	--

**BTEX Method 5035A/8260B**

Analysis Date: 08/20/04

Benzene	< 2.0	ug/kg	
Toluene	< 5.0	ug/kg	
Ethyl benzene	< 5.0	ug/kg	
Xylenes (total)	< 5.0	ug/kg	

**Polynuclear Aromatic Compounds Method 3540C/8270C**

Preparation Date: 08/18/04

Analysis Date: 08/23/04

Naphthalene	< 25	ug/kg	
Acenaphthylene	< 50	ug/kg	
Acenaphthene	< 50	ug/kg	
Fluorene	< 50	ug/kg	
Phenanthrene	< 50	ug/kg	
Anthracene	< 50	ug/kg	
Fluoranthene	< 50	ug/kg	
Pyrene	< 50	ug/kg	
Benzo[a]anthracene	10	ug/kg	
Chrysene	< 50	ug/kg	
Benzo[b]fluoranthene	< 11	ug/kg	
Benzo[k]fluoranthene	< 11	ug/kg	
Benzo[a]pyrene	< 15	ug/kg	
Indeno[1,2,3-cd]pyrene	< 29	ug/kg	
Dibenz[a,h]anthracene	< 20	ug/kg	
Benzo[g,h,i]perylene	< 50	ug/kg	



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## Analytical Report

Client: CLAYTON GROUP SERVICES  
Project ID: 15-04183  
Sample Number: 34879  
Sample Description: B-3A/1-2  
Lab File ID: 34867-84

Date Received: 08/13/04  
Date Taken: 08/12/04  
Time Taken: 10:35  
Date Reported: 08/24/04

Analyte	Result	Units	Flags
Solids, Total	85.88	%	

### Volatile Organic Compounds Method 5035A/8260B

Analysis Date: 08/20/04

Acetone	< 10.0	ug/kg	
Benzene	< 5.0	ug/kg	
Bromodichloromethane	< 5.0	ug/kg	
Bromoform	< 5.0	ug/kg	
Bromomethane	< 10.0	ug/kg	
2-Butanone	< 10.0	ug/kg	
Carbon disulfide	< 5.0	ug/kg	
Carbon tetrachloride	< 5.0	ug/kg	
Chlorobenzene	< 5.0	ug/kg	
Chlorodibromomethane	< 5.0	ug/kg	
Chloroethane	< 10.0	ug/kg	
Chloroform	< 5.0	ug/kg	
Chloromethane	< 10.0	ug/kg	
1,1-Dichloroethane	< 5.0	ug/kg	
1,2-Dichloroethane	< 5.0	ug/kg	
1,1-Dichloroethene	< 5.0	ug/kg	
cis-1,2-Dichloroethene	< 5.0	ug/kg	
trans-1,2-Dichloroethene	< 5.0	ug/kg	
1,2-Dichloropropane	< 5.0	ug/kg	
cis-1,3-Dichloropropene	< 5.0	ug/kg	
trans-1,3-Dichloropropene	< 5.0	ug/kg	
Ethyl benzene	< 5.0	ug/kg	
2-Hexanone	< 10.0	ug/kg	
4-Methyl-2-pentanone	< 10.0	ug/kg	
Methylene chloride	< 5.0	ug/kg	
MTBE	< 5.0	ug/kg	
Styrene	< 5.0	ug/kg	
1,1,2,2-Tetrachloroethane	< 5.0	ug/kg	
Tetrachloroethene	< 5.0	ug/kg	
Toluene	< 5.0	ug/kg	
1,1,1-Trichloroethane	< 5.0	ug/kg	
1,1,2-Trichloroethane	< 5.0	ug/kg	
Trichloroethene	< 5.0	ug/kg	
Vinyl Acetate	< 10.0	ug/kg	
Vinyl Chloride	< 10.0	ug/kg	
Xylenes (total)	< 5.0	ug/kg	



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**Analytical Report**

Client: CLAYTON GROUP SERVICES  
Project ID: 15-04183  
Sample Number: 34879  
Sample Description: B-3A/1-2  
Lab File ID: 34867-84

Date Received: 08/13/04  
Date Taken: 08/12/04  
Time Taken: 10:35  
Date Reported: 08/24/04

Analyte	Result	Units	Flags
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**Polynuclear Aromatic Compounds Method 3540C/8270C**

Preparation Date: 08/18/04

Analysis Date: 08/21/04

Naphthalene	< 25	ug/kg	
Acenaphthylene	< 50	ug/kg	
Acenaphthene	< 50	ug/kg	
Fluorene	< 50	ug/kg	
Phenanthrene	410	ug/kg	
Anthracene	95	ug/kg	
Fluoranthene	646	ug/kg	
Pyrene	628	ug/kg	
Benzo[a]anthracene	319	ug/kg	
Chrysene	300	ug/kg	
Benzo[b]fluoranthene	252	ug/kg	
Benzo[k]fluoranthene	255	ug/kg	
Benzo[a]pyrene	317	ug/kg	
Indeno[1,2,3-cd]pyrene	173	ug/kg	
Dibenz[a,h]anthracene	55	ug/kg	
Benzo[g,h,i]perylene	144	ug/kg	

Analyte	Result	Units	Date Analyzed	Method
pH @ 25°C (1:10)	9.19	units	08/19/04	9045C
Arsenic	27.5	mg/kg	08/20/04	3050B/6010B
Barium	338	mg/kg	08/20/04	3050B/6010B
Cadmium	<0.1	mg/kg	08/20/04	3050B/6010B
Chromium	27.7	mg/kg	08/20/04	3050B/6010B
Lead	153	mg/kg	08/20/04	3050B/6010B
Mercury	0.06	mg/kg	08/17/04	7470A
Selenium	2.8	mg/kg	08/20/04	3050B/6010B
Silver	0.5	mg/kg	08/20/04	3050B/6010B

**TCLP Metals**

Arsenic	<0.002	mg/L	08/20/04	3010A/6010B
Barium	<1.0	mg/L	08/20/04	3010A/6010B
Cadmium	0.006	mg/L	08/20/04	3010A/6010B
Chromium	0.001	mg/L	08/20/04	3010A/6010B
Lead	0.188	mg/L	08/20/04	3010A/6010B
Mercury	<0.0005	mg/L	08/18/04	7470A
Selenium	<0.002	mg/L	08/20/04	3010A/6010B
Silver	<0.001	mg/L	08/20/04	3010A/6010B



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**Analytical Report**

Client: CLAYTON GROUP SERVICES  
Project ID: 15-04183  
Sample Number: 34872  
Sample Description: B-4A/1.5  
Lab File ID: 34867-84

Date Received: 08/13/04  
Date Taken: 08/12/04  
Time Taken: 13:00  
Date Reported: 08/24/04

Analyte	Result	Units	Flags
Solids, Total	85.90	%	

**Polynuclear Aromatic Compounds Method 3540C/8270C**

Preparation Date: 08/18/04  
Analysis Date: 08/20/04

Naphthalene	574	ug/kg
Acenaphthylene	287	ug/kg
Acenaphthene	675	ug/kg
Fluorene	884	ug/kg
Phenanthrene	8,060	ug/kg
Anthracene	1,840	ug/kg
Fluoranthene	9,220	ug/kg
Pyrene	8,240	ug/kg
Benzo[a]anthracene	3,970	ug/kg
Chrysene	4,340	ug/kg
Benzo[b]fluoranthene	3,360	ug/kg
Benzo[k]fluoranthene	3,160	ug/kg
Benzo[a]pyrene	4,040	ug/kg
Indeno[1,2,3-cd]pyrene	2,780	ug/kg
Dibenz[a,h]anthracene	675	ug/kg
Benzo[g,h,i]perylene	2,540	ug/kg

**PCBs Method 3540C/8082**

Preparation Date: 08/16/04  
Date Analyzed: 08/23/04

Aroclor 1016	< 80.0	ug/kg
Aroclor 1221	< 80.0	ug/kg
Aroclor 1232	< 80.0	ug/kg
Aroclor 1242	< 80.0	ug/kg
Aroclor 1248	< 80.0	ug/kg
Aroclor 1254	857	ug/kg
Aroclor 1260	< 160	ug/kg



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**Analytical Report**

Client:	CLAYTON GROUP SERVICES		
Project ID:	15-04183	Date Received:	08/13/04
Sample Number:	34872	Date Taken:	08/12/04
Sample Description:	B-4A/1.5	Time Taken:	13:00
Lab File ID:	34867-84	Date Reported:	08/24/04

Analyte	Result	Units	Date Analyzed	Method
pH @ 25°C (1:10)	10.22	units	08/19/04	9045C
Arsenic	21.3	mg/kg	08/20/04	3050B/6010B
Barium	556	mg/kg	08/20/04	3050B/6010B
Cadmium	22.5	mg/kg	08/20/04	3050B/6010B
Chromium	94.6	mg/kg	08/20/04	3050B/6010B
Lead	10,200	mg/kg	08/23/04	3050B/6010B
Mercury	2.07	mg/kg	08/18/04	7470A
Selenium	<0.2	mg/kg	08/20/04	3050B/6010B
Silver	8.8	mg/kg	08/20/04	3050B/6010B
<b>TCLP Metals</b>				
Arsenic	<0.002	mg/L	08/20/04	3010A/6010B
Barium	<1.0	mg/L	08/20/04	3010A/6010B
Cadmium	0.314	mg/L	08/20/04	3010A/6010B
Chromium	0.002	mg/L	08/20/04	3010A/6010B
Lead	21.8	mg/L	08/20/04	3010A/6010B
Mercury	<0.0005	mg/L	08/18/04	7470A
Selenium	<0.002	mg/L	08/20/04	3010A/6010B
Silver	<0.001	mg/L	08/20/04	3010A/6010B



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**Analytical Report**

Client: CLAYTON GROUP SERVICES  
Project ID: 15-04183  
Sample Number: 34873  
Sample Description: B-4B/3  
Lab File ID: 34867-84

Date Received: 08/13/04  
Date Taken: 08/12/04  
Time Taken: 13:40  
Date Reported: 08/24/04

Analyte	Result	Units	Flags
Solids, Total	83.33	%	

**Polynuclear Aromatic Compounds Method 3540C/8270C**

Preparation Date: 08/18/04

Analysis Date: 08/20/04

Naphthalene	1,680	ug/kg	
Acenaphthylene	999	ug/kg	
Acenaphthene	1,600	ug/kg	
Fluorene	1,980	ug/kg	
Phenanthrene	14,500	ug/kg	
Anthracene	3,970	ug/kg	
Fluoranthene	20,200	ug/kg	
Pyrene	19,200	ug/kg	
Benzo[a]anthracene	9,330	ug/kg	
Chrysene	10,300	ug/kg	
Benzo[b]fluoranthene	9,930	ug/kg	
Benzo[k]fluoranthene	6,650	ug/kg	
Benzo[a]pyrene	10,400	ug/kg	
Indeno[1,2,3-cd]pyrene	7,310	ug/kg	
Dibenz[a,h]anthracene	1,540	ug/kg	
Benzo[g,h,i]perylene	6,470	ug/kg	

**PCBs Method 3540C/8082**

Preparation Date: 08/16/04

Date Analyzed: 08/20/04

Aroclor 1016	< 80.0	ug/kg	
Aroclor 1221	< 80.0	ug/kg	
Aroclor 1232	< 80.0	ug/kg	
Aroclor 1242	< 80.0	ug/kg	
Aroclor 1248	< 80.0	ug/kg	
Aroclor 1254	3,440	ug/kg	
Aroclor 1260	< 160	ug/kg	



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**Analytical Report**

Client:	CLAYTON GROUP SERVICES		
Project ID:	15-04183	Date Received:	08/13/04
Sample Number:	34873	Date Taken:	08/12/04
Sample Description:	B-4B/3	Time Taken:	13:40
Lab File ID:	34867-84	Date Reported:	08/24/04

Analyte	Result	Units	Date Analyzed	Method
pH @ 25°C (1:10)	8.44	units	08/19/04	9045C
Arsenic	92.1	mg/kg	08/20/04	3050B/6010B
Barium	60.9	mg/kg	08/20/04	3050B/6010B
Cadmium	24.3	mg/kg	08/20/04	3050B/6010B
Chromium	126	mg/kg	08/20/04	3050B/6010B
Lead	8,940	mg/kg	08/20/04	3050B/6010B
Mercury	17.3	mg/kg	08/17/04	7470A
Selenium	12.9	mg/kg	08/20/04	3050B/6010B
Silver	8.6	mg/kg	08/20/04	3050B/6010B
<b>TCLP Metals</b>				
Arsenic	0.024	mg/L	08/20/04	3010A/6010B
Barium	1.1	mg/L	08/20/04	3010A/6010B
Cadmium	0.506	mg/L	08/20/04	3010A/6010B
Chromium	0.003	mg/L	08/20/04	3010A/6010B
Lead	96.1	mg/L	08/23/04	3010A/6010B
Mercury	<0.0005	mg/L	08/18/04	7470A
Selenium	<0.002	mg/L	08/20/04	3010A/6010B
Silver	<0.001	mg/L	08/20/04	3010A/6010B


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**Analytical Report**

Client: CLAYTON GROUP SERVICES  
 Project ID: 15-04183  
 Sample Number: 34869  
 Sample Description: B-5A/4-6  
 Lab File ID: 34867-84

Date Received: 08/13/04  
 Date Taken: 08/12/04  
 Time Taken: 11:35  
 Date Reported: 08/24/04

Analyte	Result	Units	Flags
Solids, Total	84.57	%	

**BTEX Method 5035A/8260B**

Analysis Date: 08/20/04

Benzene	< 2.0	ug/kg	
Toluene	< 5.0	ug/kg	
Ethyl benzene	< 5.0	ug/kg	
Xylenes (total)	< 5.0	ug/kg	

**Polynuclear Aromatic Compounds Method 3540C/8270C**

Preparation Date: 08/18/04

Analysis Date: 08/20/04

Naphthalene	< 25	ug/kg	
Acenaphthylene	< 50	ug/kg	
Acenaphthene	< 50	ug/kg	
Fluorene	< 50	ug/kg	
Phenanthrene	233	ug/kg	
Anthracene	< 50	ug/kg	
Fluoranthene	244	ug/kg	
Pyrene	206	ug/kg	
Benzo[a]anthracene	117	ug/kg	
Chrysene	151	ug/kg	
Benzo[b]fluoranthene	100	ug/kg	
Benzo[k]fluoranthene	95	ug/kg	
Benzo[a]pyrene	112	ug/kg	
Indeno[1,2,3-cd]pyrene	75	ug/kg	
Dibenz[a,h]anthracene	21	ug/kg	
Benzo[g,h,i]perylene	75	ug/kg	



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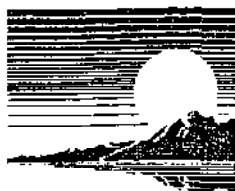
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**Analytical Report**

Client: CLAYTON GROUP SERVICES  
Project ID: 15-04183  
Sample Number: 34869  
Sample Description: B-5A/4-6  
Lab File ID: 34867-84

Date Received: 08/13/04  
Date Taken: 08/12/04  
Time Taken: 11:35  
Date Reported: 08/24/04

Analyte	Result	Units	Date Analyzed	Method
pH @ 25°C (1:10)	8.99	units	08/19/04	9045C
Arsenic	79.6	mg/kg	08/20/04	3050B/6010B
Barium	432	mg/kg	08/20/04	3050B/6010B
Cadmium	3.1	mg/kg	08/20/04	3050B/6010B
Chromium	22.6	mg/kg	08/20/04	3050B/6010B
Lead	1,010	mg/kg	08/20/04	3050B/6010B
Mercury	0.36	mg/kg	08/17/04	7470A
Selenium	6.3	mg/kg	08/20/04	3050B/6010B
Silver	0.4	mg/kg	08/20/04	3050B/6010B
<b>TCLP Metals</b>				
Arsenic	<0.002	mg/L	08/20/04	3010A/6010B
Barium	<1.0	mg/L	08/20/04	3010A/6010B
Cadmium	0.042	mg/L	08/20/04	3010A/6010B
Chromium	0.002	mg/L	08/20/04	3010A/6010B
Lead	0.787	mg/L	08/20/04	3010A/6010B
Mercury	<0.0005	mg/L	08/18/04	7470A
Selenium	<0.002	mg/L	08/20/04	3010A/6010B
Silver	<0.001	mg/L	08/20/04	3010A/6010B



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**Analytical Report**

Client: CLAYTON GROUP SERVICES  
Project ID: 15-04183  
Sample Number: 34874  
Sample Description: B-6A/2  
Lab File ID: 34867-84

Date Received: 08/13/04  
Date Taken: 08/12/04  
Time Taken: 13:55  
Date Reported: 08/24/04

Analyte	Result	Units	Flags
Solids, Total	76.41	%	

**BTEX Method 5035A/8260B**

Analysis Date: 08/20/04

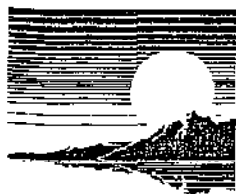
Benzene	< 2.0	ug/kg
Toluene	< 5.0	ug/kg
Ethyl benzene	5.0	ug/kg
Xylenes (total)	6.4	ug/kg

**Polynuclear Aromatic Compounds Method 3540C/8270C**

Preparation Date: 08/18/04

Analysis Date: 08/23/04

Naphthalene	2,590	ug/kg
Acenaphthylene	< 50	ug/kg
Acenaphthene	61	ug/kg
Fluorene	183	ug/kg
Phenanthrene	1,200	ug/kg
Anthracene	170	ug/kg
Fluoranthene	866	ug/kg
Pyrene	879	ug/kg
Benzo[a]anthracene	340	ug/kg
Chrysene	492	ug/kg
Benzo[b]fluoranthene	305	ug/kg
Benzo[k]fluoranthene	213	ug/kg
Benzo[a]pyrene	340	ug/kg
Indeno[1,2,3-cd]pyrene	196	ug/kg
Dibenz[a,h]anthracene	70	ug/kg
Benzo[g,h,i]perylene	287	ug/kg



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**Analytical Report**

Client: CLAYTON GROUP SERVICES  
Project ID: 15-04183  
Sample Number: 34874  
Sample Description: B-6A/2  
Lab File ID: 34867-84

Date Received: 08/13/04  
Date Taken: 08/12/04  
Time Taken: 13:55  
Date Reported: 08/24/04

Analyte	Result	Units	Date Analyzed	Method
pH @ 25°C (1:10)	8.12	units	08/19/04	9045C
Arsenic	42.6	mg/kg	08/20/04	3050B/6010B
Barium	350	mg/kg	08/20/04	3050B/6010B
Cadmium	107	mg/kg	08/20/04	3050B/6010B
Chromium	91.0	mg/kg	08/20/04	3050B/6010B
Lead	34,000	mg/kg	08/23/04	3050B/6010B
Mercury	1.10	mg/kg	08/17/04	7470A
Selenium	0.9	mg/kg	08/20/04	3050B/6010B
Silver	51.4	mg/kg	08/20/04	3050B/6010B
<b>TCLP Metals</b>				
Arsenic	0.003	mg/L	08/20/04	3010A/6010B
Barium	<1.0	mg/L	08/20/04	3010A/6010B
Cadmium	0.529	mg/L	08/20/04	3010A/6010B
Chromium	<0.001	mg/L	08/20/04	3010A/6010B
Lead	2.53	mg/L	08/20/04	3010A/6010B
Mercury	<0.0005	mg/L	08/18/04	7470A
Selenium	<0.002	mg/L	08/20/04	3010A/6010B
Silver	<0.001	mg/L	08/20/04	3010A/6010B



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**Analytical Report**

Client: CLAYTON GROUP SERVICES  
Project ID: 15-04183  
Sample Number: 34876  
Sample Description: B-7A/1-2  
Lab File ID: 34867-84

Date Received: 08/13/04  
Date Taken: 08/12/04  
Time Taken: 15:25  
Date Reported: 08/24/04

Analyte	Result	Units	Flags
Solids, Total	82.47	%	

**BTEX Method 5035A/8260B**

Analysis Date: 08/20/04

Benzene	< 2.0	ug/kg	
Toluene	< 5.0	ug/kg	
Ethyl benzene	< 5.0	ug/kg	
Xylenes (total)	< 5.0	ug/kg	

**Polynuclear Aromatic Compounds Method 3540C/8270C**

Preparation Date: 08/18/04

Analysis Date: 08/20/04

Naphthalene	6,530	ug/kg	
Acenaphthylene	1,370	ug/kg	
Acenaphthene	4,560	ug/kg	
Fluorene	5,160	ug/kg	
Phenanthrene	70,600	ug/kg	
Anthracene	16,100	ug/kg	
Fluoranthene	203,000	ug/kg	
Pyrene	182,000	ug/kg	
Benzo[a]anthracene	106,000	ug/kg	
Chrysene	96,600	ug/kg	
Benzo[b]fluoranthene	75,200	ug/kg	
Benzo[k]fluoranthene	97,800	ug/kg	
Benzo[a]pyrene	110,000	ug/kg	
Indeno[1,2,3-cd]pyrene	69,200	ug/kg	
Dibenz[a,h]anthracene	16,200	ug/kg	
Benzo[g,h,i]perylene	37,500	ug/kg	



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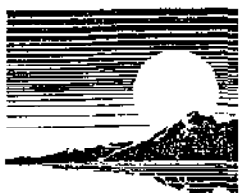
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**Analytical Report**

Client: CLAYTON GROUP SERVICES  
Project ID: 15-04183  
Sample Number: 34876  
Sample Description: B-7A/1-2  
Lab File ID: 34867-84

Date Received: 08/13/04  
Date Taken: 08/12/04  
Time Taken: 15:25  
Date Reported: 08/24/04

Analyte	Result	Units	Date Analyzed	Method
pH @ 25°C (1:10)	9.04	units	08/19/04	9045C
Arsenic	16.5	mg/kg	08/20/04	3050B/6010B
Barium	1,490	mg/kg	08/23/04	3050B/6010B
Cadmium	16.8	mg/kg	08/20/04	3050B/6010B
Chromium	82.1	mg/kg	08/20/04	3050B/6010B
Lead	8,790	mg/kg	08/23/04	3050B/6010B
Mercury	0.21	mg/kg	08/17/04	7470A
Selenium	1.5	mg/kg	08/20/04	3050B/6010B
Silver	2.0	mg/kg	08/20/04	3050B/6010B
<b>TCLP Metals</b>				
Arsenic	<0.002	mg/L	08/20/04	3010A/6010B
Barium	2.4	mg/L	08/20/04	3010A/6010B
Cadmium	0.348	mg/L	08/20/04	3010A/6010B
Chromium	0.003	mg/L	08/20/04	3010A/6010B
Lead	21.8	mg/L	08/20/04	3010A/6010B
Mercury	<0.0005	mg/L	08/18/04	7470A
Selenium	<0.002	mg/L	08/20/04	3010A/6010B
Silver	<0.001	mg/L	08/20/04	3010A/6010B



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## Analytical Report

Client: CLAYTON GROUP SERVICES  
Project ID: 15-04183  
Sample Number: 34870  
Sample Description: B-8A/2-4  
Lab File ID: 34867-84

Date Received: 08/13/04  
Date Taken: 08/12/04  
Time Taken: 11:42  
Date Reported: 08/24/04

Analyte	Result	Units	Flags
Solids, Total	82.03	%	

### BTEX Method 5035A/8260B

Analysis Date: 08/20/04

Benzene	1,850	ug/kg
Toluene	26.0	ug/kg
Ethyl benzene	55.2	ug/kg
Xylenes (total)	61.4	ug/kg

Analyte	Result	Units	Date Analyzed	Method
Cyanide	<0.10	mg/kg	08/23/04	9010B/9014
pH @ 25°C (1:10)	8.51	units	08/19/04	9045C
Arsenic	6.4	mg/kg	08/20/04	3050B/6010B
Barium	40.5	mg/kg	08/20/04	3050B/6010B
Cadmium	<0.1	mg/kg	08/20/04	3050B/6010B
Chromium	22.0	mg/kg	08/20/04	3050B/6010B
Lead	20.6	mg/kg	08/20/04	3050B/6010B
Mercury	<0.05	mg/kg	08/17/04	7470A
Selenium	<0.2	mg/kg	08/20/04	3050B/6010B
Silver	<0.1	mg/kg	08/20/04	3050B/6010B

### TCLP Metals

Arsenic	0.005	mg/L	08/20/04	3010A/6010B
Barium	<1.0	mg/L	08/20/04	3010A/6010B
Cadmium	<0.001	mg/L	08/20/04	3010A/6010B
Chromium	0.002	mg/L	08/20/04	3010A/6010B
Lead	0.046	mg/L	08/20/04	3010A/6010B
Mercury	<0.0005	mg/L	08/18/04	7470A
Selenium	<0.002	mg/L	08/20/04	3010A/6010B
Silver	0.001	mg/L	08/20/04	3010A/6010B



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## Analytical Report

Client: CLAYTON GROUP SERVICES  
Project ID: 15-04183  
Sample Number: 34871  
Sample Description: B-8B/6-8  
Lab File ID: 34867-84

Date Received: 08/13/04  
Date Taken: 08/12/04  
Time Taken: 11:46  
Date Reported: 08/24/04

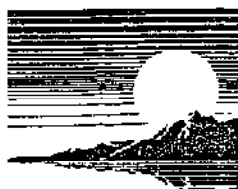
Analyte	Result	Units	Flags
Solids, Total	83.92	%	

### BTEX Method 5035A/8260B

Analysis Date: 08/20/04

Benzene	< 2.0	ug/kg
Toluene	< 5.0	ug/kg
Ethyl benzene	< 5.0	ug/kg
Xylenes (total)	< 5.0	ug/kg

Analyte	Result	Units	Date Analyzed	Method
Cyanide	<0.10	mg/kg	08/23/04	9010B/9014
pH @ 25°C (1:10)	8.80	units	08/19/04	9045C
Arsenic	7.8	mg/kg	08/20/04	3050B/6010B
Barium	34.1	mg/kg	08/20/04	3050B/6010B
Cadmium	<0.1	mg/kg	08/20/04	3050B/6010B
Chromium	16.3	mg/kg	08/20/04	3050B/6010B
Lead	14.2	mg/kg	08/20/04	3050B/6010B
Mercury	<0.05	mg/kg	08/17/04	7470A
Selenium	<0.2	mg/kg	08/20/04	3050B/6010B
Silver	<0.1	mg/kg	08/20/04	3050B/6010B
<b>TCLP Metals</b>				
Arsenic	<0.002	mg/L	08/20/04	3010A/6010B
Barium	<1.0	mg/L	08/20/04	3010A/6010B
Cadmium	0.002	mg/L	08/20/04	3010A/6010B
Chromium	0.002	mg/L	08/20/04	3010A/6010B
Lead	0.009	mg/L	08/20/04	3010A/6010B
Mercury	<0.0005	mg/L	08/18/04	7470A
Selenium	<0.002	mg/L	08/20/04	3010A/6010B
Silver	0.001	mg/L	08/20/04	3010A/6010B



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## Analytical Report

Client: CLAYTON GROUP SERVICES  
Project ID: 15-04183  
Sample Number: 34882  
Sample Description: B-9A/4-6  
Lab File ID: 34867-84

Date Received: 08/13/04  
Date Taken: 08/12/04  
Time Taken: 12:00  
Date Reported: 08/24/04

Analyte	Result	Units	Flags
Solids, Total	80.98	%	
<b>BTEX Method 5035A/8260B</b>			
Analysis Date:	08/20/04		
Benzene	< 2.0	ug/kg	
Toluene	< 5.0	ug/kg	
Ethyl benzene	< 5.0	ug/kg	
Xylenes (total)	< 5.0	ug/kg	



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**Analytical Report**

Client: CLAYTON GROUP SERVICES  
Project ID: 15-04183  
Sample Number: 34883  
Sample Description: B-9B/8-10  
Lab File ID: 34867-84

Date Received: 08/13/04  
Date Taken: 08/12/04  
Time Taken: 12:10  
Date Reported: 08/24/04

Analyte	Result	Units	Flags
Solids, Total	81.81	%	
<b>BTEX Method 5035A/8260B</b>			
Analysis Date:	08/19/04		
Benzene	< 2.0	ug/kg	
Toluene	< 5.0	ug/kg	
Ethyl benzene	< 5.0	ug/kg	
Xylenes (total)	< 5.0	ug/kg	



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**Analytical Report**

Client: CLAYTON GROUP SERVICES  
Project ID: 15-04183  
Sample Number: 34884  
Sample Description: B-9C/10-12  
Lab File ID: 34867-84

Date Received: 08/13/04  
Date Taken: 08/12/04  
Time Taken: 12:15  
Date Reported: 08/24/04

Analyte	Result	Units	Flags
Solids, Total	82.02	%	

**BTEX Method 5035A/8260B**

Analysis Date: 08/19/04

Benzene	< 2.0	ug/kg	
Toluene	< 5.0	ug/kg	
Ethyl benzene	< 5.0	ug/kg	
Xylenes (total)	< 5.0	ug/kg	



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**Analytical Report**

Client: CLAYTON GROUP SERVICES  
Project ID: 15-04183  
Sample Number: 34878  
Sample Description: GW-2  
Lab File ID: 34867-84

Date Received: 08/13/04  
Date Taken: 08/13/04  
Time Taken: 10:20  
Date Reported: 08/24/04

Analyte	Result	Units	Flags
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**BTEX Method 5030B/8260B**

Analysis Date: 08/19/04

Benzene	< 5.0	ug/L	
Toluene	< 5.0	ug/L	
Ethyl benzene	< 5.0	ug/L	
Xylenes (total)	< 5.0	ug/L	

**Polynuclear Aromatic Compounds Method 3510C/8270C**

Preparation Date 08/17/04

Analysis Date: 08/20/04

Naphthalene	< 10	ug/L	
Acenaphthylene	< 10	ug/L	
Acenaphthene	< 10	ug/L	
Fluorene	< 2	ug/L	
Phenanthrene	< 5	ug/L	
Anthracene	< 5	ug/L	
Fluoranthene	3	ug/L	
Pyrene	3	ug/L	
Benzo[a]anthracene	1.5	ug/L	
Chrysene	1.8	ug/L	
Benzo[b]fluoranthene	1.4	ug/L	
Benzo[k]fluoranthene	1.3	ug/L	
Benzo[a]pyrene	1.8	ug/L	
Indeno[1,2,3-cd]pyrene	1.2	ug/L	
Dibenz[a,h]anthracene	0.3	ug/L	
Benzo[g,h,i]perylene	1.2	ug/L	



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**Analytical Report**

Client: CLAYTON GROUP SERVICES  
Project ID: 15-04183  
Sample Number: 34877  
Sample Description: GW-3  
Lab File ID: 34867-84

Date Received: 08/13/04  
Date Taken: 08/13/04  
Time Taken: 8:15  
Date Reported: 08/24/04

Analyte	Result	Units	Flags
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**Volatile Organic Compounds Method 5030B/8260B**

Analysis Date: 08/19/04

Acetone	< 10.0	ug/L	
Benzene	< 5.0	ug/L	
Bromodichloromethane	< 1.0	ug/L	
Bromoform	< 1.0	ug/L	
Bromomethane	< 5.0	ug/L	
2-Butanone	< 10.0	ug/L	
Carbon disulfide	< 5.0	ug/L	
Carbon tetrachloride	< 5.0	ug/L	
Chlorobenzene	< 5.0	ug/L	
Chlorodibromomethane	< 1.0	ug/L	
Chloroethane	< 10.0	ug/L	
Chloroform	< 1.0	ug/L	
Chloromethane	< 10.0	ug/L	
1,1-Dichloroethane	< 5.0	ug/L	
1,2-Dichloroethane	< 5.0	ug/L	
1,1-Dichloroethene	< 5.0	ug/L	
cis-1,2-Dichloroethene	< 5.0	ug/L	
trans-1,2-Dichloroethene	< 5.0	ug/L	
1,2-Dichloropropane	< 5.0	ug/L	
cis-1,3-Dichloropropene	< 1.0	ug/L	
trans-1,3-Dichloropropene	< 1.0	ug/L	
Ethyl benzene	< 5.0	ug/L	
2-Hexanone	< 10.0	ug/L	
4-Methyl-2-pentanone	< 10.0	ug/L	
Methylene chloride	< 5.0	ug/L	
MTBE	< 5.0	ug/L	
Styrene	< 5.0	ug/L	
1,1,2,2-Tetrachloroethane	< 5.0	ug/L	
Tetrachloroethene	< 5.0	ug/L	
Toluene	< 5.0	ug/L	
1,1,1-Trichloroethane	< 5.0	ug/L	
1,1,2-Trichloroethane	< 5.0	ug/L	
Trichloroethene	< 5.0	ug/L	
Vinyl Acetate	< 10.0	ug/L	
Vinyl Chloride	< 2.0	ug/L	
Xylenes (total)	< 5.0	ug/L	



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## Analytical Report

Client: CLAYTON GROUP SERVICES  
Project ID: 15-04183  
Sample Number: 34877  
Sample Description: GW-3  
Lab File ID: 34867-84

Date Received: 08/13/04  
Date Taken: 08/13/04  
Time Taken: 8:15  
Date Reported: 08/24/04

Analyte	Result	Units	Flags
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### Polynuclear Aromatic Compounds Method 3510C/8270C

Preparation Date 08/17/04

Analysis Date: 08/20/04

Naphthalene	< 10	ug/L	
Acenaphthylene	< 10	ug/L	
Acenaphthene	< 10	ug/L	
Fluorene	< 2	ug/L	
Phenanthrene	< 5	ug/L	
Anthracene	< 5	ug/L	
Fluoranthene	< 2	ug/L	
Pyrene	< 2	ug/L	
Benzo[a]anthracene	0.50	ug/L	
Chrysene	< 1.5	ug/L	
Benzo[b]fluoranthene	0.46	ug/L	
Benzo[k]fluoranthene	0.41	ug/L	
Benzo[a]pyrene	0.6	ug/L	
Indeno[1,2,3-cd]pyrene	0.4	ug/L	
Dibenz[a,h]anthracene	< 0.3	ug/L	
Benzo[g,h,i]perylene	< 0.4	ug/L	

Analyte	Result	Units	Date Analyzed	Method
Arsenic	0.016	mg/L	08/19/04	3010A/6010B
Barium	0.105	mg/L	08/19/04	3010A/6010B
Cadmium	<0.001	mg/L	08/19/04	3010A/6010B
Chromium	0.002	mg/L	08/19/04	3010A/6010B
Lead	0.178	mg/L	08/19/04	3010A/6010B
Mercury	<0.0005	mg/L	08/17/04	7470A
Selenium	<0.002	mg/L	08/19/04	3010A/6010B
Silver	<0.001	mg/L	08/19/04	3010A/6010B



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## Analytical Report

Client: CLAYTON GROUP SERVICES  
Project ID: 15-04183  
Sample Number: 34875  
Sample Description: GW-6  
Lab File ID: 34867-84

Date Received: 08/13/04  
Date Taken: 08/12/04  
Time Taken: 14:15  
Date Reported: 08/24/04

Analyte	Result	Units	Flags
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### BTEX Method 5030B/8260B

Analysis Date: 08/19/04

Benzene	< 5.0	ug/L	
Toluene	< 5.0	ug/L	
Ethyl benzene	< 5.0	ug/L	
Xylenes (total)	< 5.0	ug/L	

### Polynuclear Aromatic Compounds Method 3510C/8270C

Preparation Date 08/17/04

Analysis Date: 08/20/04

Naphthalene	< 10	ug/L	
Acenaphthylene	< 10	ug/L	
Acenaphthene	< 10	ug/L	
Fluorene	< 2	ug/L	
Phenanthrene	9	ug/L	
Anthracene	< 5	ug/L	
Fluoranthene	21	ug/L	
Pyrene	17	ug/L	
Benzo[a]anthracene	10.6	ug/L	
Chrysene	13	ug/L	
Benzo[b]fluoranthene	12	ug/L	
Benzo[k]fluoranthene	8.6	ug/L	
Benzo[a]pyrene	10	ug/L	
Indeno[1,2,3-cd]pyrene	8.1	ug/L	
Dibenz[a,h]anthracene	3.2	ug/L	
Benzo[g,h,i]perylene	6.8	ug/L	



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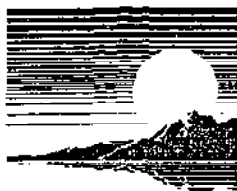
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**Analytical Report**

Client: CLAYTON GROUP SERVICES  
Project ID: 15-04183  
Sample Number: 34875  
Sample Description: GW-6  
Lab File ID: 34867-84

Date Received: 08/13/04  
Date Taken: 08/12/04  
Time Taken: 14:15  
Date Reported: 08/24/04

Analyte	Result	Units	Date Analyzed	Method
Arsenic	0.008	mg/L	08/19/04	3010A/6010B
Barium	0.199	mg/L	08/19/04	3010A/6010B
Cadmium	<0.001	mg/L	08/19/04	3010A/6010B
Chromium	<0.001	mg/L	08/19/04	3010A/6010B
Lead	0.012	mg/L	08/19/04	3010A/6010B
Mercury	<0.0005	mg/L	08/17/04	7470A
Selenium	<0.002	mg/L	08/19/04	3010A/6010B
Silver	<0.001	mg/L	08/19/04	3010A/6010B



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## Analytical Report

Client: CLAYTON GROUP SERVICES  
Project ID: 15-04183  
Sample Number: 34868  
Sample Description: GW-8  
Lab File ID: 34867-84

Date Received: 08/13/04  
Date Taken: 08/12/04  
Time Taken: 11:10  
Date Reported: 08/24/04

Analyte	Result	Units	Flags
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### BTEX Method 5030B/8260B

Analysis Date: 08/19/04

Benzene	6.7	ug/L	
Toluene	< 5.0	ug/L	
Ethyl benzene	< 5.0	ug/L	
Xylenes (total)	< 5.0	ug/L	

Analyte	Result	Units	Date Analyzed	Method
Arsenic	0.004	mg/L	08/19/04	3010A/6010B
Barium	0.047	mg/L	08/19/04	3010A/6010B
Cadmium	<0.001	mg/L	08/19/04	3010A/6010B
Chromium	<0.001	mg/L	08/19/04	3010A/6010B
Lead	<0.002	mg/L	08/19/04	3010A/6010B
Mercury	<0.0005	mg/L	08/17/04	7470A
Selenium	<0.002	mg/L	08/19/04	3010A/6010B
Silver	<0.001	mg/L	08/19/04	3010A/6010B

# CHAIN OF CUSTODY RECORD



**First Environmental Laboratories, Inc.**

**First Environmental Laboratories**  
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 Naperville, Illinois 60563  
 Phone: (630) 778-1200 • Fax: (630) 778-1233  
 24 Hr. Pager (708) 569-7507  
 E-mail: info@firstenv.com  
 IEPA Certification# 100292

Company Name: Clayton Group Services  
 Street Address: 3140 Finley Rd  
 City: Downers Grove State: IL Zip: 60515  
 Phone: 795-3200 Fax: 795-1130  
 Send Report To: Melie Mueller  
 Sampled By: Debra W. Lonsma

Matrix Codes: S = Soil W = Water O = Other		Apalyses										Lab I.D.
Date/Time Taken	Sample Description	VOC	BTEX	PCRA	PCRA Metds	PH	Total Cyanide	PCBs	PNAs	Comments		
8/2 0850	B-1A/2-4	X	X	X	X	X						34867
1110	GW-8		X	X	X	X				No Bottle used		868
1135	B-5A/4-6		X	X	X	X						869
1142	B-8A/2-4		X	X	X	X						870
1146	B-8B/6-8		X	X	X	X						871
1300	B-4A/1.5		X	X	X	X						872
1340	B-4B/3		X	X	X	X						873
1355	B-6A/2		X	X	X	X						874
1415	GW-6		X	X	X	X						875
1525	B-7A/1-2		X	X	X	X						876
8/13 0815	GW-3	X	X	X	X	X						877
8/13 1020	GW-2	X	X	X	X	X						878

Cooler Temperature: 6°C on ice  
 Received within 6 hrs. of collection: \_\_\_\_\_

Notes and Special Instructions: \_\_\_\_\_

Relinquished By: Donna Date/Time: 8/13 1450 Received By: Debra W. Lonsma Date/Time: 8/13 1450  
 Relinquished By: \_\_\_\_\_ Date/Time: \_\_\_\_\_ Received By: \_\_\_\_\_ Date/Time: \_\_\_\_\_

Company Name: Clayton  
Street Address: 3140 Finley Rd  
City: Dunnell Grove  
Phone: 795-3206  
Send Report To: Marie Mueller  
Sampled By: Belen W. Lomsme

Relinquished By: Samir Date/Time 8/13<sup>th</sup> 8/1450 Received By: Adam #10000 Date/Time 8/13/04 1450

Relinquished By: \_\_\_\_\_ Date/Time \_\_\_\_\_ Received By: \_\_\_\_\_ Date/Time \_\_\_\_\_



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August 27, 2004

Ms. Marie Mueller  
**CLAYTON GROUP SERVICES INC.**  
3140 Finley Road  
Downers Grove, IL 60515

Project ID: 15-04183.00-003  
First Environmental File ID: 35397-09  
Date Received: August 20, 2004

Dear Ms. Mueller:

The above referenced project was analyzed as directed on the enclosed chain of custody record.

**PROJECT SUMMARY**

Analyses were performed in accordance with the methods found in the USEPA publication: Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW-846, 3<sup>rd</sup> Edition, December 1996. Specific method references are listed on the Analytical Report.

All analyses were performed within established holding times, and all Quality Control criteria as outlined in the methods and current IL ELAP/NELAP have been met. QA/QC documentation will remain on file for future reference.

I thank you for the opportunity to be of service and look forward to working with you again in the future. Should you have any questions regarding any of the enclosed analytical data, please contact me at (630) 778-1200.

Sincerely,

William H. Mottashed  
Project Manager



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## Analytical Report

Client: CLAYTON GROUP SERVICES  
Project ID: 15-04183.00-003  
Sample Number: 35402  
Sample Description: MW1-081904  
Lab File ID: 35397-09

Date Received: 08/20/04  
Date Taken: 08/19/04  
Time Taken: 11:25  
Date Reported: 08/27/04

Analyte	Result	Units	Flags
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### Volatile Organic Compounds Method 5030B/8260B

Analysis Date: 08/25/04

Acetone	< 10.0	ug/L	
Benzene	< 5.0	ug/L	
Bromodichloromethane	< 1.0	ug/L	
Bromoform	< 1.0	ug/L	
Bromomethane	< 5.0	ug/L	
2-Butanone	< 10.0	ug/L	
Carbon disulfide	< 5.0	ug/L	
Carbon tetrachloride	< 5.0	ug/L	
Chlorobenzene	< 5.0	ug/L	
Chlorodibromomethane	< 1.0	ug/L	
Chloroethane	< 10.0	ug/L	
Chloroform	< 1.0	ug/L	
Chloromethane	< 10.0	ug/L	
1,1-Dichloroethane	< 5.0	ug/L	
1,2-Dichloroethane	< 5.0	ug/L	
1,1-Dichloroethene	< 5.0	ug/L	
cis-1,2-Dichloroethene	< 5.0	ug/L	
trans-1,2-Dichloroethene	< 5.0	ug/L	
1,2-Dichloropropane	< 5.0	ug/L	
cis-1,3-Dichloropropene	< 1.0	ug/L	
trans-1,3-Dichloropropene	< 1.0	ug/L	
Ethyl benzene	< 5.0	ug/L	
2-Hexanone	< 10.0	ug/L	
4-Methyl-2-pentanone	< 10.0	ug/L	
Methylene chloride	< 5.0	ug/L	
MTBE	< 5.0	ug/L	
Styrene	< 5.0	ug/L	
1,1,2,2-Tetrachloroethane	< 5.0	ug/L	
Tetrachloroethene	< 5.0	ug/L	
Toluene	< 5.0	ug/L	
1,1,1-Trichloroethane	< 5.0	ug/L	
1,1,2-Trichloroethane	< 5.0	ug/L	
Trichloroethene	< 5.0	ug/L	
Vinyl Acetate	< 10.0	ug/L	
Vinyl Chloride	< 2.0	ug/L	
Xylenes (total)	< 5.0	ug/L	



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## Analytical Report

Client: CLAYTON GROUP SERVICES  
Project ID: 15-04183.00-003  
Sample Number: 35401  
Sample Description: MW1-081904  
Lab File ID: 35397-09

Date Received: 08/20/04  
Date Taken: 08/19/04  
Time Taken: 11:10  
Date Reported: 08/27/04

Analyte	Result	Units	Flags
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### Polynuclear Aromatic Compounds Method 3510C/8270C

Preparation Date 08/24/04  
Analysis Date: 08/26/04

Naphthalene	< 10	ug/L	
Acenaphthylene	< 10	ug/L	
Acenaphthene	< 10	ug/L	
Fluorene	< 2	ug/L	
Phenanthrene	< 5	ug/L	
Anthracene	< 5	ug/L	
Fluoranthene	< 2	ug/L	
Pyrene	< 2	ug/L	
Benzo[a]anthracene	< 0.13	ug/L	
Chrysene	< 1.5	ug/L	
Benzo[b]fluoranthene	< 0.18	ug/L	
Benzo[k]fluoranthene	< 0.17	ug/L	
Benzo[a]pyrene	< 0.2	ug/L	
Indeno[1,2,3-cd]pyrene	< 0.3	ug/L	
Dibenz[a,h]anthracene	< 0.3	ug/L	
Benzo[g,h,i]perylene	< 0.4	ug/L	

Analyte	Result	Units	Date Analyzed	Method
Arsenic	<0.002	mg/L	08/24/04	3010A/6010B
Barium	0.057	mg/L	08/24/04	3010A/6010B
Cadmium	<0.001	mg/L	08/24/04	3010A/6010B
Chromium	<0.001	mg/L	08/24/04	3010A/6010B
Lead	<0.002	mg/L	08/24/04	3010A/6010B
Mercury	<0.0005	mg/L	08/23/04	7470A
Selenium	<0.002	mg/L	08/24/04	3010A/6010B
Silver	<0.001	mg/L	08/24/04	3010A/6010B



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IL ELAP / NELAC Accreditation # 100292

## Analytical Report

Client: CLAYTON GROUP SERVICES  
Project ID: 15-04183.00-003  
Sample Number: 35400  
Sample Description: MW2-081904  
Lab File ID: 35397-09

Date Received: 08/20/04  
Date Taken: 08/19/04  
Time Taken: 10:25  
Date Reported: 08/27/04

Analyte	Result	Units	Flags
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### Volatile Organic Compounds Method 5030B/8260B

Analysis Date: 08/24/04

Acetone	< 10.0	ug/L	
Benzene	< 5.0	ug/L	
Bromodichloromethane	< 1.0	ug/L	
Bromoform	< 1.0	ug/L	
Bromomethane	< 5.0	ug/L	
2-Butanone	< 10.0	ug/L	
Carbon disulfide	< 5.0	ug/L	
Carbon tetrachloride	< 5.0	ug/L	
Chlorobenzene	< 5.0	ug/L	
Chlorodibromomethane	< 1.0	ug/L	
Chloroethane	< 10.0	ug/L	
Chloroform	< 1.0	ug/L	
Chloromethane	< 10.0	ug/L	
1,1-Dichloroethane	< 5.0	ug/L	
1,2-Dichloroethane	< 5.0	ug/L	
1,1-Dichloroethene	< 5.0	ug/L	
cis-1,2-Dichloroethene	< 5.0	ug/L	
trans-1,2-Dichloroethene	< 5.0	ug/L	
1,2-Dichloropropane	< 5.0	ug/L	
cis-1,3-Dichloropropene	< 1.0	ug/L	
trans-1,3-Dichloropropene	< 1.0	ug/L	
Ethyl benzene	< 5.0	ug/L	
2-Hexanone	< 10.0	ug/L	
4-Methyl-2-pentanone	< 10.0	ug/L	
Methylene chloride	< 5.0	ug/L	
MTBE	< 5.0	ug/L	
Styrene	< 5.0	ug/L	
1,1,2,2-Tetrachloroethane	< 5.0	ug/L	
Tetrachloroethene	< 5.0	ug/L	
Toluene	< 5.0	ug/L	
1,1,1-Trichloroethane	< 5.0	ug/L	
1,1,2-Trichloroethane	< 5.0	ug/L	
Trichloroethene	< 5.0	ug/L	
Vinyl Acetate	< 10.0	ug/L	
Vinyl Chloride	< 2.0	ug/L	
Xylenes (total)	< 5.0	ug/L	



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**Analytical Report**

Client: CLAYTON GROUP SERVICES  
Project ID: 15-04183.00-003  
Sample Number: 35399  
Sample Description: MW2-081904  
Lab File ID: 35397-09

Date Received: 08/20/04  
Date Taken: 08/19/04  
Time Taken: 10:00  
Date Reported: 08/27/04

Analyte	Result	Units	Flags
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**Polynuclear Aromatic Compounds Method 3510C/8270C**

Preparation Date 08/24/04

Analysis Date: 08/26/04

Naphthalene	< 10	ug/L	
Acenaphthylene	< 10	ug/L	
Acenaphthene	< 10	ug/L	
Fluorene	< 2	ug/L	
Phenanthrene	< 5	ug/L	
Anthracene	< 5	ug/L	
Fluoranthene	< 2	ug/L	
Pyrene	< 2	ug/L	
Benzo[a]anthracene	< 0.13	ug/L	
Chrysene	< 1.5	ug/L	
Benzo[b]fluoranthene	< 0.18	ug/L	
Benzo[k]fluoranthene	< 0.17	ug/L	
Benzo[a]pyrene	< 0.2	ug/L	
Indeno[1,2,3-cd]pyrene	< 0.3	ug/L	
Dibenz[a,h]anthracene	< 0.3	ug/L	
Benzo[g,h,i]perylene	< 0.4	ug/L	

Analyte	Result	Units	Date Analyzed	Method
Arsenic	<0.002	mg/L	08/24/04	3010A/6010B
Barium	0.142	mg/L	08/24/04	3010A/6010B
Cadmium	<0.001	mg/L	08/24/04	3010A/6010B
Chromium	<0.001	mg/L	08/24/04	3010A/6010B
Lead	<0.002	mg/L	08/24/04	3010A/6010B
Mercury	<0.0005	mg/L	08/23/04	7470A
Selenium	<0.002	mg/L	08/24/04	3010A/6010B
Silver	<0.001	mg/L	08/24/04	3010A/6010B



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## Analytical Report

Client: CLAYTON GROUP SERVICES  
Project ID: 15-04183.00-003  
Sample Number: 35398  
Sample Description: MW3-081904  
Lab File ID: 35397-09

Date Received: 08/20/04  
Date Taken: 08/19/04  
Time Taken: 9:00  
Date Reported: 08/27/04

Analyte	Result	Units	Flags
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### Volatile Organic Compounds Method 5030B/8260B

Analysis Date: 08/24/04

Acetone	< 10.0	ug/L	
Benzene	< 5.0	ug/L	
Bromodichloromethane	< 1.0	ug/L	
Bromoform	< 1.0	ug/L	
Bromomethane	< 5.0	ug/L	
2-Butanone	< 10.0	ug/L	
Carbon disulfide	< 5.0	ug/L	
Carbon tetrachloride	< 5.0	ug/L	
Chlorobenzene	< 5.0	ug/L	
Chlorodibromomethane	< 1.0	ug/L	
Chloroethane	< 10.0	ug/L	
Chloroform	< 1.0	ug/L	
Chloromethane	< 10.0	ug/L	
1,1-Dichloroethane	< 5.0	ug/L	
1,2-Dichloroethane	< 5.0	ug/L	
1,1-Dichloroethene	< 5.0	ug/L	
cis-1,2-Dichloroethene	< 5.0	ug/L	
trans-1,2-Dichloroethene	< 5.0	ug/L	
1,2-Dichloropropane	< 5.0	ug/L	
cis-1,3-Dichloropropene	< 1.0	ug/L	
trans-1,3-Dichloropropene	< 1.0	ug/L	
Ethyl benzene	< 5.0	ug/L	
2-Hexanone	< 10.0	ug/L	
4-Methyl-2-pentanone	< 10.0	ug/L	
Methylene chloride	< 5.0	ug/L	
MTBE	< 5.0	ug/L	
Styrene	< 5.0	ug/L	
1,1,2,2-Tetrachloroethane	< 5.0	ug/L	
Tetrachloroethene	< 5.0	ug/L	
Toluene	< 5.0	ug/L	
1,1,1-Trichloroethane	< 5.0	ug/L	
1,1,2-Trichloroethane	< 5.0	ug/L	
Trichloroethene	< 5.0	ug/L	
Vinyl Acetate	< 10.0	ug/L	
Vinyl Chloride	< 2.0	ug/L	
Xylenes (total)	< 5.0	ug/L	



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## Analytical Report

Client: CLAYTON GROUP SERVICES  
Project ID: 15-04183.00-003  
Sample Number: 35397  
Sample Description: MW3-081904  
Lab File ID: 35397-09

Date Received: 08/20/04  
Date Taken: 08/19/04  
Time Taken: 8:30  
Date Reported: 08/27/04

Analyte	Result	Units	Flags
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### Polynuclear Aromatic Compounds Method 3510C/8270C

Preparation Date: 08/24/04  
Analysis Date: 08/26/04

Naphthalene	< 10	ug/L	
Acenaphthylene	< 10	ug/L	
Acenaphthene	< 10	ug/L	
Fluorene	< 2	ug/L	
Phenanthrene	< 5	ug/L	
Anthracene	< 5	ug/L	
Fluoranthene	< 2	ug/L	
Pyrene	< 2	ug/L	
Benzo[a]anthracene	< 0.13	ug/L	
Chrysene	< 1.5	ug/L	
Benzo[b]fluoranthene	< 0.18	ug/L	
Benzo[k]fluoranthene	< 0.17	ug/L	
Benzo[a]pyrene	< 0.2	ug/L	
Indeno[1,2,3-cd]pyrene	< 0.3	ug/L	
Dibenz[a,h]anthracene	< 0.3	ug/L	
Benzo[g,h,i]perylene	< 0.4	ug/L	

Analyte	Result	Units	Date Analyzed	Method
Arsenic	0.006	mg/L	08/24/04	3010A/6010B
Barium	0.295	mg/L	08/24/04	3010A/6010B
Cadmium	<0.001	mg/L	08/24/04	3010A/6010B
Chromium	<0.001	mg/L	08/24/04	3010A/6010B
Lead	<0.002	mg/L	08/24/04	3010A/6010B
Mercury	<0.0005	mg/L	08/23/04	7470A
Selenium	<0.002	mg/L	08/24/04	3010A/6010B
Silver	<0.001	mg/L	08/24/04	3010A/6010B



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## Analytical Report

Client: CLAYTON GROUP SERVICES  
Project ID: 15-04183.00-003  
Sample Number: 35404  
Sample Description: MW4-081904  
Lab File ID: 35397-09

Date Received: 08/20/04  
Date Taken: 08/19/04  
Time Taken: 12:30  
Date Reported: 08/27/04

Analyte	Result	Units	Flags
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### Volatile Organic Compounds Method 5030B/8260B

Analysis Date: 08/25/04

Acetone	< 10.0	ug/L	
Benzene	< 5.0	ug/L	
Bromodichloromethane	< 1.0	ug/L	
Bromoform	< 1.0	ug/L	
Bromomethane	< 5.0	ug/L	
2-Butanone	< 10.0	ug/L	
Carbon disulfide	< 5.0	ug/L	
Carbon tetrachloride	< 5.0	ug/L	
Chlorobenzene	< 5.0	ug/L	
Chlorodibromomethane	< 1.0	ug/L	
Chloroethane	< 10.0	ug/L	
Chloroform	< 1.0	ug/L	
Chloromethane	< 10.0	ug/L	
1,1-Dichloroethane	< 5.0	ug/L	
1,2-Dichloroethane	< 5.0	ug/L	
1,1-Dichloroethene	< 5.0	ug/L	
cis-1,2-Dichloroethene	< 5.0	ug/L	
trans-1,2-Dichloroethene	< 5.0	ug/L	
1,2-Dichloropropane	< 5.0	ug/L	
cis-1,3-Dichloropropene	< 1.0	ug/L	
trans-1,3-Dichloropropene	< 1.0	ug/L	
Ethyl benzene	< 5.0	ug/L	
2-Hexanone	< 10.0	ug/L	
4-Methyl-2-pentanone	< 10.0	ug/L	
Methylene chloride	< 5.0	ug/L	
MTBE	< 5.0	ug/L	
Styrene	< 5.0	ug/L	
1,1,2,2-Tetrachloroethane	< 5.0	ug/L	
Tetrachloroethene	< 5.0	ug/L	
Toluene	< 5.0	ug/L	
1,1,1-Trichloroethane	< 5.0	ug/L	
1,1,2-Trichloroethane	< 5.0	ug/L	
Trichloroethene	< 5.0	ug/L	
Vinyl Acetate	< 10.0	ug/L	
Vinyl Chloride	< 2.0	ug/L	
Xylenes (total)	< 5.0	ug/L	



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## Analytical Report

Client: CLAYTON GROUP SERVICES

Project ID: 15-04183.00-003

Sample Number: 35403

Sample Description: MW4-081904

Lab File ID: 35397-09

Date Received: 08/20/04

Date Taken: 08/19/04

Time Taken: 12:01

Date Reported: 08/27/04

Analyte	Result	Units	Flags
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### Polynuclear Aromatic Compounds Method 3510C/8270C

Preparation Date 08/24/04

Analysis Date: 08/26/04

Naphthalene	< 10	ug/L	
Acenaphthylene	< 10	ug/L	
Acenaphthene	< 10	ug/L	
Fluorene	< 2	ug/L	
Phenanthrene	< 5	ug/L	
Anthracene	< 5	ug/L	
Fluoranthene	< 2	ug/L	
Pyrene	< 2	ug/L	
Benzo[a]anthracene	< 0.13	ug/L	
Chrysene	< 1.5	ug/L	
Benzo[b]fluoranthene	< 0.18	ug/L	
Benzo[k]fluoranthene	< 0.17	ug/L	
Benzo[a]pyrene	< 0.2	ug/L	
Indeno[1,2,3-cd]pyrene	< 0.3	ug/L	
Dibenz[a,h]anthracene	< 0.3	ug/L	
Benzo[g,h,i]perylene	< 0.4	ug/L	

Analyte	Result	Units	Date Analyzed	Method
Arsenic	<0.002	mg/L	08/24/04	3010A/6010B
Barium	0.069	mg/L	08/24/04	3010A/6010B
Cadmium	<0.001	mg/L	08/24/04	3010A/6010B
Chromium	<0.001	mg/L	08/24/04	3010A/6010B
Lead	<0.002	mg/L	08/24/04	3010A/6010B
Mercury	<0.0005	mg/L	08/23/04	7470A
Selenium	<0.002	mg/L	08/24/04	3010A/6010B
Silver	<0.001	mg/L	08/24/04	3010A/6010B



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## Analytical Report

Client: CLAYTON GROUP SERVICES  
Project ID: 15-04183.00-003  
Sample Number: 35408  
Sample Description: MW5-081904  
Lab File ID: 35397-09

Date Received: 08/20/04  
Date Taken: 08/19/04  
Time Taken: 14:37  
Date Reported: 08/27/04

Analyte	Result	Units	Flags
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### Volatile Organic Compounds Method 5030B/8260B

Analysis Date: 08/25/04

Acetone	< 10.0	ug/L	
Benzene	< 5.0	ug/L	
Bromodichloromethane	< 1.0	ug/L	
Bromoform	< 1.0	ug/L	
Bromomethane	< 5.0	ug/L	
2-Butanone	< 10.0	ug/L	
Carbon disulfide	< 5.0	ug/L	
Carbon tetrachloride	< 5.0	ug/L	
Chlorobenzene	< 5.0	ug/L	
Chlorodibromomethane	< 1.0	ug/L	
Chloroethane	< 10.0	ug/L	
Chloroform	< 1.0	ug/L	
Chloromethane	< 10.0	ug/L	
1,1-Dichloroethane	< 5.0	ug/L	
1,2-Dichloroethane	< 5.0	ug/L	
1,1-Dichloroethene	< 5.0	ug/L	
cis-1,2-Dichloroethene	< 5.0	ug/L	
trans-1,2-Dichloroethene	< 5.0	ug/L	
1,2-Dichloropropane	< 5.0	ug/L	
cis-1,3-Dichloropropene	< 1.0	ug/L	
trans-1,3-Dichloropropene	< 1.0	ug/L	
Ethyl benzene	< 5.0	ug/L	
2-Hexanone	< 10.0	ug/L	
4-Methyl-2-pentanone	< 10.0	ug/L	
Methylene chloride	< 5.0	ug/L	
MTBE	< 5.0	ug/L	
Styrene	< 5.0	ug/L	
1,1,2,2-Tetrachloroethane	< 5.0	ug/L	
Tetrachloroethene	< 5.0	ug/L	
Toluene	< 5.0	ug/L	
1,1,1-Trichloroethane	< 5.0	ug/L	
1,1,2-Trichloroethane	< 5.0	ug/L	
Trichloroethene	< 5.0	ug/L	
Vinyl Acetate	< 10.0	ug/L	
Vinyl Chloride	< 2.0	ug/L	
Xylenes (total)	< 5.0	ug/L	



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## Analytical Report

Client: CLAYTON GROUP SERVICES  
Project ID: 15-04183.00-003  
Sample Number: 35407  
Sample Description: MW5-081904  
Lab File ID: 35397-09

Date Received: 08/20/04  
Date Taken: 08/19/04  
Time Taken: 14:20  
Date Reported: 08/27/04

Analyte	Result	Units	Flags
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### Polynuclear Aromatic Compounds Method 3510C/8270C

Preparation Date 08/24/04

Analysis Date: 08/26/04

Naphthalene	< 10	ug/L	
Acenaphthylene	< 10	ug/L	
Acenaphthene	< 10	ug/L	
Fluorene	< 2	ug/L	
Phenanthrene	< 5	ug/L	
Anthracene	< 5	ug/L	
Fluoranthene	< 2	ug/L	
Pyrene	< 2	ug/L	
Benzo[a]anthracene	< 0.13	ug/L	
Chrysene	< 1.5	ug/L	
Benzo[b]fluoranthene	< 0.18	ug/L	
Benzo[k]fluoranthene	< 0.17	ug/L	
Benzo[a]pyrene	< 0.2	ug/L	
Indeno[1,2,3-cd]pyrene	< 0.3	ug/L	
Dibenz[a,h]anthracene	< 0.3	ug/L	
Benzo[g,h,i]perylene	< 0.4	ug/L	

Analyte	Result	Units	Date Analyzed	Method
Arsenic	<0.002	mg/L	08/24/04	3010A/6010B
Barium	0.096	mg/L	08/24/04	3010A/6010B
Cadmium	<0.001	mg/L	08/24/04	3010A/6010B
Chromium	<0.001	mg/L	08/24/04	3010A/6010B
Lead	<0.002	mg/L	08/24/04	3010A/6010B
Mercury	<0.0005	mg/L	08/23/04	7470A
Selenium	<0.002	mg/L	08/24/04	3010A/6010B
Silver	<0.001	mg/L	08/24/04	3010A/6010B



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## Analytical Report

Client: CLAYTON GROUP SERVICES  
Project ID: 15-04183.00-003  
Sample Number: 35406  
Sample Description: MW6-081904  
Lab File ID: 35397-09

Date Received: 08/20/04  
Date Taken: 08/19/04  
Time Taken: 13:32  
Date Reported: 08/27/04

Analyte	Result	Units	Flags
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### Volatile Organic Compounds Method 5030B/8260B

Analysis Date: 08/25/04

Acetone	< 10.0	ug/L	
Benzene	< 5.0	ug/L	
Bromodichloromethane	< 1.0	ug/L	
Bromoform	< 1.0	ug/L	
Bromomethane	< 5.0	ug/L	
2-Butanone	< 10.0	ug/L	
Carbon disulfide	< 5.0	ug/L	
Carbon tetrachloride	< 5.0	ug/L	
Chlorobenzene	< 5.0	ug/L	
Chlorodibromomethane	< 1.0	ug/L	
Chloroethane	< 10.0	ug/L	
Chloroform	< 1.0	ug/L	
Chloromethane	< 10.0	ug/L	
1,1-Dichloroethane	< 5.0	ug/L	
1,2-Dichloroethane	< 5.0	ug/L	
1,1-Dichloroethene	< 5.0	ug/L	
cis-1,2-Dichloroethene	< 5.0	ug/L	
trans-1,2-Dichloroethene	< 5.0	ug/L	
1,2-Dichloropropane	< 5.0	ug/L	
cis-1,3-Dichloropropene	< 1.0	ug/L	
trans-1,3-Dichloropropene	< 1.0	ug/L	
Ethyl benzene	< 5.0	ug/L	
2-Hexanone	< 10.0	ug/L	
4-Methyl-2-pentanone	< 10.0	ug/L	
Methylene chloride	< 5.0	ug/L	
MTBE	< 5.0	ug/L	
Styrene	< 5.0	ug/L	
1,1,2,2-Tetrachloroethane	< 5.0	ug/L	
Tetrachloroethene	< 5.0	ug/L	
Toluene	< 5.0	ug/L	
1,1,1-Trichloroethane	< 5.0	ug/L	
1,1,2-Trichloroethane	< 5.0	ug/L	
Trichloroethene	< 5.0	ug/L	
Vinyl Acetate	< 10.0	ug/L	
Vinyl Chloride	< 2.0	ug/L	
Xylenes (total)	< 5.0	ug/L	



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## Analytical Report

Client: CLAYTON GROUP SERVICES  
Project ID: 15-04183.00-003  
Sample Number: 35405  
Sample Description: MW6-081904  
Lab File ID: 35397-09

Date Received: 08/20/04  
Date Taken: 08/19/04  
Time Taken: 13:10  
Date Reported: 08/27/04

Analyte	Result	Units	Flags
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### Polynuclear Aromatic Compounds Method 3510C/8270C

Preparation Date 08/24/04

Analysis Date: 08/26/04

Naphthalene	< 10	ug/L	
Acenaphthylene	< 10	ug/L	
Acenaphthene	< 10	ug/L	
Fluorene	< 2	ug/L	
Phenanthrene	< 5	ug/L	
Anthracene	< 5	ug/L	
Fluoranthene	< 2	ug/L	
Pyrene	< 2	ug/L	
Benzo[a]anthracene	< 0.13	ug/L	
Chrysene	< 1.5	ug/L	
Benzo[b]fluoranthene	< 0.18	ug/L	
Benzo[k]fluoranthene	< 0.17	ug/L	
Benzo[a]pyrene	< 0.2	ug/L	
Indeno[1,2,3-cd]pyrene	< 0.3	ug/L	
Dibenz[a,h]anthracene	< 0.3	ug/L	
Benzo[g,h,i]perylene	< 0.4	ug/L	

Analyte	Result	Units	Date Analyzed	Method
Arsenic	<0.002	mg/L	08/23/04	3010A/6010B
Barium	0.076	mg/L	08/23/04	3010A/6010B
Cadmium	<0.001	mg/L	08/23/04	3010A/6010B
Chromium	<0.001	mg/L	08/23/04	3010A/6010B
Lead	<0.002	mg/L	08/23/04	3010A/6010B
Mercury	<0.0005	mg/L	08/23/04	7470A
Selenium	<0.002	mg/L	08/23/04	3010A/6010B
Silver	<0.001	mg/L	08/23/04	3010A/6010B



# First Environmental Laboratories, Inc.

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IL ELAP / NELAC Accreditation # 100292

## Analytical Report

Client: CLAYTON GROUP SERVICES  
Project ID: 15-04183.00-003  
Sample Number: 35409  
Sample Description: Trip Blank  
Lab File ID: 35397-09

Date Received: 08/20/04  
Date Taken: 08/19/04  
Time Taken: N/A  
Date Reported: 08/27/04

Analyte	Result	Units	Flags
---------	--------	-------	-------

### Volatile Organic Compounds Method 5030B/8260B

Analysis Date: 08/24/04

Acetone	< 10.0	ug/L	
Benzene	< 5.0	ug/L	
Bromodichloromethane	< 1.0	ug/L	
Bromoform	< 1.0	ug/L	
Bromomethane	< 5.0	ug/L	
2-Butanone	< 10.0	ug/L	
Carbon disulfide	< 5.0	ug/L	
Carbon tetrachloride	< 5.0	ug/L	
Chlorobenzene	< 5.0	ug/L	
Chlorodibromomethane	< 1.0	ug/L	
Chloroethane	< 10.0	ug/L	
Chloroform	< 1.0	ug/L	
Chloromethane	< 10.0	ug/L	
1,1-Dichloroethane	< 5.0	ug/L	
1,2-Dichloroethane	< 5.0	ug/L	
1,1-Dichloroethene	< 5.0	ug/L	
cis-1,2-Dichloroethene	< 5.0	ug/L	
trans-1,2-Dichloroethene	< 5.0	ug/L	
1,2-Dichloropropane	< 5.0	ug/L	
cis-1,3-Dichloropropene	< 1.0	ug/L	
trans-1,3-Dichloropropene	< 1.0	ug/L	
Ethyl benzene	< 5.0	ug/L	
2-Hexanone	< 10.0	ug/L	
4-Methyl-2-pentanone	< 10.0	ug/L	
Methylene chloride	< 5.0	ug/L	
MTBE	< 5.0	ug/L	
Styrene	< 5.0	ug/L	
1,1,2,2-Tetrachloroethane	< 5.0	ug/L	
Tetrachloroethene	< 5.0	ug/L	
Toluene	< 5.0	ug/L	
1,1,1-Trichloroethane	< 5.0	ug/L	
1,1,2-Trichloroethane	< 5.0	ug/L	
Trichloroethene	< 5.0	ug/L	
Vinyl Acetate	< 10.0	ug/L	
Vinyl Chloride	< 2.0	ug/L	
Xylenes (total)	< 5.0	ug/L	



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E-mail: info@firstenv.com  
IEPA Certification# 100292

**CHAIN OF CUSTODY RECORD**

Company Name: Clayton Group Services  
Street Address: 3140 Finley Road State: IL Zip: 60515  
City: Downers Grove Part: 630-795-1130  
Phone: 630-795-3200  
Send Report To: Marie Mueller  
Sampled By: Marie Mueller

Project I.D.: 15-04183.00-003  
P.O. #: 15-04183.00-003

Matrix Codes: S = Soil W = Water O = Other		Analyses			
Date/Time Taken	Sample Description	Matrix	Total Metals (PPM)	PNAS	VOCs
8/19/04 0830	MW3-081904	W	X	X	
0900	MW3-081904	W	X	X	
1000	MW2-081904	W	X	X	
1025	MW2-081904	W	X	X	
1110	MW1-081904	W	X	X	
1125	MW1-081904	W	X	X	
1201	MW4-081904	W	X	X	
1230	MW4-081904	W	X	X	
1310	MW6-081904	W	X	X	
1332	MW6-081904	W	X	X	
1420	MW5-081904	W	X	X	
1437	MW5-081904	W	X	X	
		W			X

Lab ID: 35397 - 96 99 400 01 02 03 04 05 06 07 08 09

Cooler Temperature: \_\_\_\_\_ °C  
Received within 6 hrs. of collection: \_\_\_\_\_

Notes and Special Instructions: Standard TAT

Relinquished By: Marie Mueller Date/Time: 8/19/04 11:15 Received By: [Signature] Date/Time: 8/20/04 11:45  
Relinquished By: \_\_\_\_\_ Date/Time: \_\_\_\_\_ Received By: \_\_\_\_\_ Date/Time: \_\_\_\_\_



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September 29, 2004

Ms. Marie Mueller  
**CLAYTON GROUP SERVICES INC.**  
3140 Finley Road  
Downers Grove, IL 60515

Project ID: 15-04183.00-004  
First Environmental File ID: 38095, 38143  
Date Received: September 28, 2004

Dear Ms. Mueller:

The above referenced project was analyzed as directed on the enclosed chain of custody record.

**PROJECT SUMMARY**

Analyses were performed in accordance with the methods found in the USEPA publication: Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW-846, 3<sup>rd</sup> Edition, December 1996. Specific method references are listed on the Analytical Report.

All analyses were performed within established holding times, and all Quality Control criteria as outlined in the methods and current IL ELAP/NELAP have been met. QA/QC documentation will remain on file for future reference.

I thank you for the opportunity to be of service and look forward to working with you again in the future. Should you have any questions regarding any of the enclosed analytical data, please contact me at (630) 778-1200.

Sincerely,

William H. Mottashed  
Project Manager



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**Analytical Report**

Client:	CLAYTON GROUP SERVICES	Date Received:	09/28/04
Project ID:	15-04183.00-004	Date Taken:	09/28/04
Sample Number:	38095	Time Taken:	9:55
Sample Description:	GW-30	Date Reported:	09/29/04
Lab File ID:	38095		

Analyte	Result	Units	Date Analyzed	Method
Lead, dissolved	<0.002	mg/L	09/28/04	6010B



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**Analytical Report**

Client:	CLAYTON GROUP SERVICES	Date Received:	09/28/04
Project ID:	15-04183.00-004	Date Taken:	09/28/04
Sample Number:	38143	Time Taken:	9:55
Sample Description:	GW-30 Unfiltered	Date Reported:	09/29/04
Lab File ID:	38143		

Analyte	Result	Units	Date Analyzed	Method
Lead, total	32.0	mg/L	09/29/04	6010B



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E-mail: [info@firstenv.com](mailto:info@firstenv.com)  
IEPA Certification# 100292

## CHAIN OF CUSTODY RECORD

Company Name: Clayton Group Services  
Street Address: 3140 Finley Rd  
City: Penners Grove IL 60515  
State: Zip:  
Phone: 795-3200 Fax: 795-1130  
Send Report To: Morie Mueller  
Sampled By: Debra Lemina, Sam Peterson

Project I.D.: 15-04183.00-004

P.O. #.:

**Matrix Codes:** S = Soil, W = Water, O = Other

[illegible]

Cooler Temperature: 26°C on ice  
Received within 6 hrs. of collection:

Notes and Special Instructions: re-filter the filtered GW-30 sample

Relinquished By: Gen. J. H. H. Date/Time: 9/28/01 9:55 Received By: Sheldon S. Peral Date/Time: 9/28/01 11:55  
Relinquished By: \_\_\_\_\_ Date/Time: \_\_\_\_\_ Received By: \_\_\_\_\_ Date/Time: \_\_\_\_\_



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October 5, 2004

Ms. Marie Mueller  
**CLAYTON GROUP SERVICES INC.**  
3140 Finley Road  
Downers Grove, IL 60515

Project ID: 15-04183.00-004  
First Environmental File ID: 38096-97  
Date Received: September 28, 2004

Dear Ms. Mueller:

The above referenced project was analyzed as directed on the enclosed chain of custody record.

**PROJECT SUMMARY**

Analyses were performed in accordance with the methods found in the USEPA publication: Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW-846, 3<sup>rd</sup> Edition, December 1996. Specific method references are listed on the Analytical Report.

Results for the soil samples have been expressed on a dry weight basis per method protocol.

All analyses were performed within established holding times, and all Quality Control criteria as outlined in the methods and current IL ELAP/NELAP have been met. QA/QC documentation will remain on file for future reference.

I thank you for the opportunity to be of service and look forward to working with you again in the future. Should you have any questions regarding any of the enclosed analytical data, please contact me at (630) 778-1200.

Sincerely,

William H. Mottashed  
Project Manager



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**Analytical Report**

Client: CLAYTON GROUP SERVICES  
Project ID: 15-04183.00-004  
Lab File ID: 38096-97

Date Received: 09/28/04  
Date Reported: 10/05/04

**TPH - Method Modified 8015B**

Date Analyzed: 10/05/04

<u>Sample #</u>	<u>Description</u>	<u>Date/Time Taken</u>	<u>TPH as Gasoline mg/kg</u>	<u>TPH as Diesel mg/kg</u>	<u>TPH as Oil mg/kg</u>	<u>Total TPH mg/kg</u>	<u>Total Solids %</u>
38096	B-51/2-4	09/28/04 9:00	<10	165	93	258	87.14
38097	B-50/4-6	09/28/04 9:08	<125	3,630	<125	3,630	78.77



**First  
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## CHAIN OF CUSTODY RECORD

**First Environmental Laboratories**

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E-mail: [info@firstenv.com](mailto:info@firstenv.com)  
IEPA Certification# 1009202

Company Name: Clayton Group Services

Street Address: 3140 Finley Rd

City: Pomona Grove IL 60515 State: Ill.

Phone: 795-3200 Fax: 795-1130

Send Report To: *Mrs. Mueller*

Sampled By: Dieter Lemme, Son Peterson

Project I.D.: 15-04183.00-004

P.O. #

Matrix Codes: S = Soil W = Water O = Other

[illegible]Cooler Temperature: 24°C on ice

Received within 6 hrs. of collection:

**Notes and Special Instructions:**

re-filter the filtered GW-30 sample

## Relinquished ByC

Date/Time	Received By:	Date/Time
9/28/01 9:55	William Mark	9/28/01 11:55

Relinquished By:

Received By:	Date/Time:



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October 8, 2004

Ms. Marie Mueller  
**CLAYTON GROUP SERVICES INC.**  
3140 Finley Road  
Downers Grove, IL 60515

Project ID: 15-04183.00-003  
First Environmental File ID: 38316-36  
Date Received: September 30<sup>th</sup>, 2004

Dear Ms. Mueller:

The above referenced project was analyzed as directed on the enclosed chain of custody record.

**PROJECT SUMMARY**


Analyses were performed in accordance with the methods found in the USEPA publication: Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW-846, 3<sup>rd</sup> Edition, December 1996. Specific method references are listed on the Analytical Report.

Results for the soil samples have been expressed on a dry weight basis per method protocol.

All analyses were performed within established holding times, and all Quality Control criteria as outlined in the methods and current IL ELAP/NELAP have been met. QA/QC documentation will remain on file for future reference.

I thank you for the opportunity to be of service and look forward to working with you again in the future. Should you have any questions regarding any of the enclosed analytical data, please contact me at (630) 778-1200.

Sincerely,

  
William H. Mottashed  
Project Manager



# First Environmental Laboratories, Inc.

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IL ELAP / NELAC Accreditation # 100292

## Analytical Report

Client: CLAYTON GROUP SERVICES  
Project ID: 15-04183.00-003  
Sample Number: 38332  
Sample Description: B-29/2  
Lab File ID: 38316-36

Date Received: 09/30/04  
Date Taken: 09/29/04  
Time Taken: 1505  
Date Reported: 10/08/04

Analyte	Result	Units	Flags
Solids, Total	89.22	%	

### Polynuclear Aromatic Compounds Method 3540C/8270C

Preparation Date: 10/05/04

Analysis Date: 10/07/04

Naphthalene	< 25	ug/kg
Acenaphthylene	< 50	ug/kg
Acenaphthene	< 50	ug/kg
Fluorene	< 50	ug/kg
Phenanthrene	< 50	ug/kg
Anthracene	< 50	ug/kg
Fluoranthene	< 50	ug/kg
Pyrene	< 50	ug/kg
Benzo[a]anthracene	< 8.7	ug/kg
Chrysene	< 50	ug/kg
Benzo[b]fluoranthene	< 11	ug/kg
Benzo[k]fluoranthene	< 11	ug/kg
Benzo[a]pyrene	< 15	ug/kg
Indeno[1,2,3-cd]pyrene	< 29	ug/kg
Dibenz[a,h]anthracene	< 20	ug/kg
Benzo[g,h,i]perylene	< 50	ug/kg

### Metals Method 3050B/6010B

Analysis Date: 10/06/04

TCLP Lead	0.050	mg/L
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## Analytical Report

Client: CLAYTON GROUP SERVICES  
Project ID: 15-04183.00-003  
Sample Number: 38319  
Sample Description: B-31/3  
Lab File ID: 38316-36

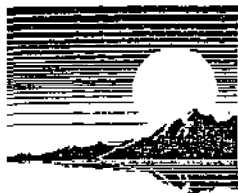
Date Received: 09/30/04  
Date Taken: 09/29/04  
Time Taken: 914  
Date Reported: 10/08/04

Analyte	Result	Units	Flags
Solids, Total	72.53	%	

### Base-Neutral/Acid Compounds Method 3540C/8270C

Preparation Date: 10/05/04  
Analysis Date: 10/07/04

Acenaphthene	1,170	ug/kg	
Acenaphthylene	991	ug/kg	
Anthracene	3,740	ug/kg	
Benzidine	< 330	ug/kg	
Benzo[a]anthracene	8,240	ug/kg	
Benzo[b]fluoranthene	5,050	ug/kg	
Benzo[k]fluoranthene	7,910	ug/kg	
Benzo[g,h,i]perylene	3,390	ug/kg	
Benzo[a]pyrene	7,630	ug/kg	
Benzoic Acid	< 330	ug/kg	
Benzyl alcohol	< 330	ug/kg	
bis(2-Chloroethoxy)methane	< 330	ug/kg	
bis(2-Chloroethyl)ether	< 330	ug/kg	
bis(2-chloroisopropyl)ether	< 330	ug/kg	
bis(2-Ethylhexyl)phthalate	581	ug/kg	
4-Bromophenyl-phenylether	< 330	ug/kg	
Butylbenzylphthalate	< 330	ug/kg	
Carbazole	4,530	ug/kg	
4-Chloroaniline	< 330	ug/kg	
4-Chloro-3-methylphenol	< 330	ug/kg	
2-Chloronaphthalene	< 330	ug/kg	
2-Chlorophenol	< 330	ug/kg	
4-Chlorophenyl-phenylether	< 330	ug/kg	
Chrysene	8,450	ug/kg	
Dibenz[a,h]anthracene	1,340	ug/kg	
Dibenzofuran	1,010	ug/kg	
1,2-Dichlorobenzene	< 330	ug/kg	



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## Analytical Report

Client: CLAYTON GROUP SERVICES  
Project ID: 15-04183.00-003  
Sample Number: 38319  
Sample Description: B-31/3  
Lab File ID: 38316-36

Date Received: 09/30/04  
Date Taken: 09/29/04  
Time Taken: 914  
Date Reported: 10/08/04

Analyte	Result	Units	Flags
1,3-Dichlorobenzene	< 330	ug/kg	
1,4-Dichlorobenzene	< 330	ug/kg	
3,3'-Dichlorobenzidine	< 660	ug/kg	
2,4-Dichlorophenol	< 330	ug/kg	
Diethylphthalate	< 330	ug/kg	
2,4-Dimethylphenol	< 330	ug/kg	
Dimethylphthalate	< 330	ug/kg	
Di-n-butylphthalate	< 330	ug/kg	
4,6-Dinitro-2-methylphenol	< 1,600	ug/kg	
2,4-Dinitrophenol	< 1,600	ug/kg	
2,4-Dinitrotoluene	< 250	ug/kg	
2,6-Dinitrotoluene	< 260	ug/kg	
Di-n-octylphthalate	< 330	ug/kg	
Fluoranthene	17,300	ug/kg	
Fluorene	1,420	ug/kg	
Hexachlorobenzene	< 330	ug/kg	
Hexachlorobutadiene	< 330	ug/kg	
Hexachlorocyclopentadiene	< 330	ug/kg	
Hexachloroethane	< 330	ug/kg	
Indeno[1,2,3-cd]pyrene	3,120	ug/kg	
Isophorone	< 330	ug/kg	
2-Methylnaphthalene	1,350	ug/kg	
2-Methylphenol	< 330	ug/kg	
3&4-Methylphenol	< 330	ug/kg	
Naphthalene	1,760	ug/kg	
2-Nitroaniline	< 1,600	ug/kg	
3-Nitroaniline	< 1,600	ug/kg	
4-Nitroaniline	< 1,600	ug/kg	
Nitrobenzene	< 260	ug/kg	
2-Nitrophenol	< 1,600	ug/kg	
4-Nitrophenol	< 1,600	ug/kg	
N-Nitrosodimethylamine	< 330	ug/kg	
N-Nitroso-di-n-propylamine	< 330	ug/kg	



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## Analytical Report

Client: CLAYTON GROUP SERVICES  
Project ID: 15-04183.00-003  
Sample Number: 38319  
Sample Description: B-31/3  
Lab File ID: 38316-36

Date Received: 09/30/04  
Date Taken: 09/29/04  
Time Taken: 914  
Date Reported: 10/08/04

Analyte	Result	Units	Flags
n-Nitrosodiphenylamine	< 330	ug/kg	
Pentachlorophenol	< 330	ug/kg	
Phenanthrene	14,100	ug/kg	
Phenol	< 330	ug/kg	
Pyrene	15,600	ug/kg	
1,2,4-Trichlorobenzene	< 330	ug/kg	
2,4,5-Trichlorophenol	< 660	ug/kg	
2,4,6-Trichlorophenol	< 330	ug/kg	

### PCBs Method 3540C/8082

Preparation Date: 10/04/04  
Date Analyzed: 10/06/04

Aroclor 1016	< 80.0	ug/kg
Aroclor 1221	< 80.0	ug/kg
Aroclor 1232	< 80.0	ug/kg
Aroclor 1242	< 80.0	ug/kg
Aroclor 1248	< 80.0	ug/kg
Aroclor 1254	1,180	ug/kg
Aroclor 1260	< 160	ug/kg



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## Analytical Report

Client:	CLAYTON GROUP SERVICES		
Project ID:	15-04183.00-003	Date Received:	09/30/04
Sample Number:	38319	Date Taken:	09/29/04
Sample Description:	B-31/3	Time Taken:	914
Lab File ID:	38316-36	Date Reported:	10/08/04

Analyte	Result	Units	Date Analyzed	Method
pH @ 25°C (1:10)	7.80	units	10/01/04	9045C
Cyanide	0.91	mg/kg	10/04/04	9010B/9014
Aluminum	5,820	mg/kg	10/05/04	3050B/6010B
Antimony	3.8	mg/kg	10/05/04	3050B/6010B
Arsenic	13.5	mg/kg	10/05/04	3050B/6010B
Barium	78.5	mg/kg	10/05/04	3050B/6010B
Beryllium	1.1	mg/kg	10/05/04	3050B/6010B
Cadmium	5.1	mg/kg	10/05/04	3050B/6010B
Calcium	82,400	mg/kg	10/05/04	3050B/6010B
Chromium	24.6	mg/kg	10/05/04	3050B/6010B
Cobalt	6.2	mg/kg	10/05/04	3050B/6010B
Copper	653	mg/kg	10/05/04	3050B/6010B
Iron	24,200	mg/kg	10/05/04	3050B/6010B
Lead	1,060	mg/kg	10/05/04	3050B/6010B
Magnesium	6,060	mg/kg	10/05/04	3050B/6010B
Manganese	440	mg/kg	10/05/04	3050B/6010B
Mercury	0.60	mg/kg	10/04/04	7470A
Nickel	54.7	mg/kg	10/05/04	3050B/6010B
Potassium	1,660	mg/kg	10/05/04	3050B/6010B
Selenium	1.0	mg/kg	10/05/04	3050B/6010B
Silver	2.5	mg/kg	10/05/04	3050B/6010B
Sodium	2,630	mg/kg	10/05/04	3050B/6010B
Thallium	<1.0	mg/kg	10/05/04	3050B/6010B
Vanadium	14.8	mg/kg	10/05/04	3050B/6010B
Zinc	4,880	mg/kg	10/05/04	3050B/6010B



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## Analytical Report

Client: CLAYTON GROUP SERVICES  
Project ID: 15-04183.00-003  
Sample Number: 38322  
Sample Description: B-31/7  
Lab File ID: 38316-36

Date Received: 09/30/04  
Date Taken: 09/29/04  
Time Taken: 1130  
Date Reported: 10/08/04

Analyte	Result	Units	Flags
Solids, Total	81.47	%	
<b>Volatile Organic Compounds Method 5035A/8260B</b>			
Analysis Date:	10/06/04		
Acetone	< 10.0	ug/kg	
Benzene	6.4	ug/kg	
Bromodichloromethane	< 5.0	ug/kg	
Bromoform	< 5.0	ug/kg	
Bromomethane	< 10.0	ug/kg	
2-Butanone	< 10.0	ug/kg	
Carbon disulfide	< 5.0	ug/kg	
Carbon tetrachloride	< 5.0	ug/kg	
Chlorobenzene	< 5.0	ug/kg	
Chlorodibromomethane	< 5.0	ug/kg	
Chloroethane	< 10.0	ug/kg	
Chloroform	< 5.0	ug/kg	
Chloromethane	< 10.0	ug/kg	
1,1-Dichloroethane	46.8	ug/kg	
1,2-Dichloroethane	< 5.0	ug/kg	
1,1-Dichloroethene	299	ug/kg	
cis-1,2-Dichloroethene	89,200	ug/kg	
trans-1,2-Dichloroethene	2,550	ug/kg	
1,2-Dichloropropane	< 5.0	ug/kg	
cis-1,3-Dichloropropene	< 5.0	ug/kg	
trans-1,3-Dichloropropene	< 5.0	ug/kg	
Ethyl benzene	< 5.0	ug/kg	
2-Hexanone	< 10.0	ug/kg	
4-Methyl-2-pentanone	< 10.0	ug/kg	
Methylene chloride	< 5.0	ug/kg	
MTBE	< 5.0	ug/kg	
Styrene	< 5.0	ug/kg	
1,1,2,2-Tetrachloroethane	< 5.0	ug/kg	
Tetrachloroethene	< 5.0	ug/kg	
Toluene	114	ug/kg	
1,1,1-Trichloroethane	< 5.0	ug/kg	
1,1,2-Trichloroethane	< 5.0	ug/kg	
Trichloroethene	8,500	ug/kg	
Vinyl Acetate	< 10.0	ug/kg	
Vinyl Chloride	7,840	ug/kg	
Xylenes (total)	8.0	ug/kg	



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## Analytical Report

Client: CLAYTON GROUP SERVICES  
Project ID: 15-04183.00-003  
Sample Number: 38330  
Sample Description: B-32/3  
Lab File ID: 38316-36

Date Received: 09/30/04  
Date Taken: 09/29/04  
Time Taken: 1001  
Date Reported: 10/08/04

Analyte	Result	Units	Flags
Solids, Total	75.38	%	

### Polynuclear Aromatic Compounds Method 3540C/8270C

Preparation Date: 10/05/04

Analysis Date: 10/07/04

Naphthalene	364	ug/kg	
Acenaphthylene	75	ug/kg	
Acenaphthene	75	ug/kg	
Fluorene	< 50	ug/kg	
Phenanthrene	681	ug/kg	
Anthracene	70	ug/kg	
Fluoranthene	237	ug/kg	
Pyrene	487	ug/kg	
Benzo[a]anthracene	202	ug/kg	
Chrysene	263	ug/kg	
Benzo[b]fluoranthene	193	ug/kg	
Benzo[k]fluoranthene	360	ug/kg	
Benzo[a]pyrene	316	ug/kg	
Indeno[1,2,3-cd]pyrene	320	ug/kg	
Dibenz[a,h]anthracene	70	ug/kg	
Benzo[g,h,i]perylene	320	ug/kg	

### PCBs Method 3540C/8082

Preparation Date: 10/04/04

Date Analyzed: 10/06/04

Aroclor 1016	< 80.0	ug/kg	
Aroclor 1221	< 80.0	ug/kg	
Aroclor 1232	< 80.0	ug/kg	
Aroclor 1242	< 80.0	ug/kg	
Aroclor 1248	< 80.0	ug/kg	
Aroclor 1254	2,980	ug/kg	
Aroclor 1260	< 160	ug/kg	



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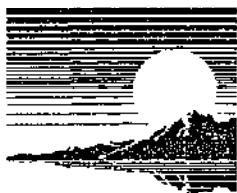
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**Analytical Report**

Client: CLAYTON GROUP SERVICES  
Project ID: 15-04183.00-003  
Sample Number: 38330  
Sample Description: B-32/3  
Lab File ID: 38316-36

Date Received: 09/30/04  
Date Taken: 09/29/04  
Time Taken: 1001  
Date Reported: 10/08/04

Analyte		Result	Units	Flags
Analyte	Result	Units	Date Analyzed	Method
Arsenic	20.3	mg/kg	10/05/04	3050B/6010B
TCLP Lead	0.237	mg/L	10/06/04	3010A/6010B



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## Analytical Report

Client: CLAYTON GROUP SERVICES  
Project ID: 15-04183.00-003  
Sample Number: 38329  
Sample Description: B-33/3  
Lab File ID: 38316-36

Date Received: 09/30/04  
Date Taken: 09/29/04  
Time Taken: 0950  
Date Reported: 10/08/04

Analyte	Result	Units	Flags
Solids, Total	82.00	%	

### Polynuclear Aromatic Compounds Method 3540C/8270C

Preparation Date: 10/05/04

Analysis Date: 10/07/04

Naphthalene	< 25	ug/kg	
Acenaphthylene	< 50	ug/kg	
Acenaphthene	< 50	ug/kg	
Fluorene	< 50	ug/kg	
Phenanthrene	< 50	ug/kg	
Anthracene	< 50	ug/kg	
Fluoranthene	< 50	ug/kg	
Pyrene	< 50	ug/kg	
Benzo[a]anthracene	9.3	ug/kg	
Chrysene	< 50	ug/kg	
Benzo[b]fluoranthene	< 11	ug/kg	
Benzo[k]fluoranthene	< 11	ug/kg	
Benzo[a]pyrene	< 15	ug/kg	
Indeno[1,2,3-cd]pyrene	< 29	ug/kg	
Dibenz[a,h]anthracene	< 20	ug/kg	
Benzo[g,h,i]perylene	< 50	ug/kg	

### PCBs Method 3540C/8082

Preparation Date: 10/04/04

Date Analyzed: 10/06/04

Aroclor 1016	< 80.0	ug/kg	
Aroclor 1221	< 80.0	ug/kg	
Aroclor 1232	< 80.0	ug/kg	
Aroclor 1242	< 80.0	ug/kg	
Aroclor 1248	< 80.0	ug/kg	
Aroclor 1254	< 160	ug/kg	
Aroclor 1260	< 160	ug/kg	



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**Analytical Report**

Client: CLAYTON GROUP SERVICES  
Project ID: 15-04183.00-003  
Sample Number: 38329  
Sample Description: B-33/3  
Lab File ID: 38316-36

Date Received: 09/30/04  
Date Taken: 09/29/04  
Time Taken: 0950  
Date Reported: 10/08/04

Analyte		Result	Units	Flags
Analyte	Result	Units	Date Analyzed	Method
Arsenic	4.1	mg/kg	10/05/04	3050B/6010B
TCLP Lead	0.004	mg/L	10/06/04	3010A/6010B



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## Analytical Report

Client: CLAYTON GROUP SERVICES  
Project ID: 15-04183.00-003  
Sample Number: 38336  
Sample Description: B-34/3  
Lab File ID: 38316-36

Date Received: 09/30/04  
Date Taken: 09/29/04  
Time Taken: 0840  
Date Reported: 10/08/04

Analyte	Result	Units	Flags
Solids, Total	85.68	%	

### Polynuclear Aromatic Compounds Method 3540C/8270C

Preparation Date: 10/05/04

Analysis Date: 10/07/04

Naphthalene	205	ug/kg	
Acenaphthylene	135	ug/kg	
Acenaphthene	116	ug/kg	
Fluorene	154	ug/kg	
Phenanthrene	1,710	ug/kg	
Anthracene	460	ug/kg	
Fluoranthene	2,300	ug/kg	
Pyrene	2,770	ug/kg	
Benzo[a]anthracene	1,380	ug/kg	
Chrysene	1,390	ug/kg	
Benzo[b]fluoranthene	1,330	ug/kg	
Benzo[k]fluoranthene	1,480	ug/kg	
Benzo[a]pyrene	1,720	ug/kg	
Indeno[1,2,3-cd]pyrene	1,300	ug/kg	
Dibenz[a,h]anthracene	305	ug/kg	
Benzo[g,h,i]perylene	1,170	ug/kg	

### PCBs Method 3540C/8082

Preparation Date: 10/04/04

Date Analyzed: 10/06/04

Aroclor 1016	< 80.0	ug/kg	
Aroclor 1221	< 80.0	ug/kg	
Aroclor 1232	< 80.0	ug/kg	
Aroclor 1242	< 80.0	ug/kg	
Aroclor 1248	< 80.0	ug/kg	
Aroclor 1254	< 160	ug/kg	
Aroclor 1260	935	ug/kg	



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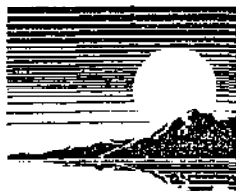
**Analytical Report**

Client:	CLAYTON GROUP SERVICES	Date Received:	09/30/04
Project ID:	15-04183.00-003	Date Taken:	09/29/04
Sample Number:	38336	Time Taken:	0840
Sample Description:	B-34/3	Date Reported:	10/08/04
Lab File ID:	38316-36		

Analyte	Result	Units	Flags
<b>Analyte</b>	<b>Result</b>	<b>Units</b>	<b>Date Analyzed</b>
			<b>Method</b>
Arsenic	23.4	mg/kg	10/05/04
TCLP Lead	9.66	mg/L	10/06/04

3050B/6010B

3010A/6010B



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## Analytical Report

Client: CLAYTON GROUP SERVICES  
Project ID: 15-04183.00-003  
Sample Number: 38320  
Sample Description: B-35/3  
Lab File ID: 38316-36

Date Received: 09/30/04  
Date Taken: 09/28/04  
Time Taken: 1600  
Date Reported: 10/08/04

Analyte	Result	Units	Flags
Solids, Total	80.15	%	

### PCBs Method 3540C/8082

Preparation Date: 10/04/04  
Date Analyzed: 10/06/04

Aroclor 1016	< 80.0	ug/kg	
Aroclor 1221	< 80.0	ug/kg	
Aroclor 1232	< 80.0	ug/kg	
Aroclor 1242	< 80.0	ug/kg	
Aroclor 1248	< 80.0	ug/kg	
Aroclor 1254	< 160	ug/kg	
Aroclor 1260	197	ug/kg	



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**Analytical Report**

Client:	CLAYTON GROUP SERVICES	Date Received:	09/30/04
Project ID:	15-04183.00-003	Date Taken:	09/28/04
Sample Number:	38328	Time Taken:	1540
Sample Description:	B-36/5	Date Reported:	10/08/04
Lab File ID:	38316-36		

Analyte	Result	Units	Date Analyzed	Method
Solids, Total	80.19	%	10/01/04	160.3
Arsenic	11.3	mg/kg	10/05/04	3050B/6010B
Lead	78.2	mg/kg	10/05/04	3050B/6010B



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**Analytical Report**

Client:	CLAYTON GROUP SERVICES	Date Received:	09/30/04
Project ID:	15-04183.00-003	Date Taken:	09/28/04
Sample Number:	38327	Time Taken:	1355
Sample Description:	B-37/5	Date Reported:	10/08/04
Lab File ID:	38316-36		

Analyte	Result	Units	Date Analyzed	Method
Solids, Total	79.11	%	10/01/04	160.3
Arsenic	12.5	mg/kg	10/05/04	3050B/6010B
Lead	1,020	mg/kg	10/05/04	3050B/6010B



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## Analytical Report

Client:	CLAYTON GROUP SERVICES		
Project ID:	15-04183.00-003	Date Received:	09/30/04
Sample Number:	38321	Date Taken:	09/29/04
Sample Description:	B-38/9	Time Taken:	1050
Lab File ID:	38316-36	Date Reported:	10/08/04

Analyte	Result	Units	Flags
Solids, Total	82.54	%	

### Base-Neutral/Acid Compounds Method 3540C/8270C

Preparation Date: 10/05/04

Analysis Date: 10/06/04

Acenaphthene	< 330	ug/kg	
Acenaphthylene	< 330	ug/kg	
Anthracene	< 330	ug/kg	
Benzidine	< 330	ug/kg	
Benzo[a]anthracene	< 330	ug/kg	
Benzo[b]fluoranthene	< 330	ug/kg	
Benzo[k]fluoranthene	< 330	ug/kg	
Benzo[g,h,i]perylene	< 330	ug/kg	
Benzo[a]pyrene	< 90	ug/kg	
Benzoic Acid	< 330	ug/kg	
Benzyl alcohol	< 330	ug/kg	
bis(2-Chloroethoxy)methane	< 330	ug/kg	
bis(2-Chloroethyl)ether	< 330	ug/kg	
bis(2-chloroisopropyl)ether	< 330	ug/kg	
bis(2-Ethylhexyl)phthalate	< 330	ug/kg	
4-Bromophenyl-phenylether	< 330	ug/kg	
Butylbenzylphthalate	< 330	ug/kg	
Carbazole	< 330	ug/kg	
4-Chloroaniline	< 330	ug/kg	
4-Chloro-3-methylphenol	< 330	ug/kg	
2-Chloronaphthalene	< 330	ug/kg	
2-Chlorophenol	< 330	ug/kg	
4-Chlorophenyl-phenylether	< 330	ug/kg	
Chrysene	< 330	ug/kg	
Dibenz[a,h]anthracene	< 90	ug/kg	
Dibenzofuran	< 330	ug/kg	
1,2-Dichlorobenzene	< 330	ug/kg	



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## Analytical Report

Client: CLAYTON GROUP SERVICES  
Project ID: 15-04183.00-003  
Sample Number: 38321  
Sample Description: B-38/9  
Lab File ID: 38316-36

Date Received: 09/30/04  
Date Taken: 09/29/04  
Time Taken: 1050  
Date Reported: 10/08/04

Analyte	Result	Units	Flags
1,3-Dichlorobenzene	< 330	ug/kg	
1,4-Dichlorobenzene	< 330	ug/kg	
3,3'-Dichlorobenzidine	< 660	ug/kg	
2,4-Dichlorophenol	< 330	ug/kg	
Diethylphthalate	< 330	ug/kg	
2,4-Dimethylphenol	< 330	ug/kg	
Dimethylphthalate	< 330	ug/kg	
Di-n-butylphthalate	< 330	ug/kg	
4,6-Dinitro-2-methylphenol	< 1,600	ug/kg	
2,4-Dinitrophenol	< 1,600	ug/kg	
2,4-Dinitrotoluene	< 250	ug/kg	
2,6-Dinitrotoluene	< 260	ug/kg	
Di-n-octylphthalate	< 330	ug/kg	
Fluoranthene	< 330	ug/kg	
Fluorene	< 330	ug/kg	
Hexachlorobenzene	< 330	ug/kg	
Hexachlorobutadiene	< 330	ug/kg	
Hexachlorocyclopentadiene	< 330	ug/kg	
Hexachloroethane	< 330	ug/kg	
Indeno[1,2,3-cd]pyrene	< 330	ug/kg	
Isophorone	< 330	ug/kg	
2-Methylnaphthalene	< 330	ug/kg	
2-Methylphenol	< 330	ug/kg	
3&4-Methylphenol	< 330	ug/kg	
Naphthalene	< 330	ug/kg	
2-Nitroaniline	< 1,600	ug/kg	
3-Nitroaniline	< 1,600	ug/kg	
4-Nitroaniline	< 1,600	ug/kg	
Nitrobenzene	< 260	ug/kg	
2-Nitrophenol	< 1,600	ug/kg	
4-Nitrophenol	< 1,600	ug/kg	
N-Nitrosodimethylamine	< 330	ug/kg	
N-Nitroso-di-n-propylamine	< 330	ug/kg	



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## Analytical Report

Client: CLAYTON GROUP SERVICES

Project ID: 15-04183.00-003

Sample Number: 38321

Sample Description: B-38/9

Lab File ID: 38316-36

Date Received: 09/30/04

Date Taken: 09/29/04

Time Taken: 1050

Date Reported: 10/08/04

Analyte	Result	Units	Flags
n-Nitrosodiphenylamine	< 330	ug/kg	
Pentachlorophenol	< 330	ug/kg	
Phenanthrene	< 330	ug/kg	
Phenol	< 330	ug/kg	
Pyrene	< 330	ug/kg	
1,2,4-Trichlorobenzene	< 330	ug/kg	
2,4,5-Trichlorophenol	< 660	ug/kg	
2,4,6-Trichlorophenol	< 330	ug/kg	

Analyte	Result	Units	Date Analyzed	Method
pH @ 25°C (1:10)	8.66	units	10/01/04	9045C
Cyanide	<0.10	mg/kg	10/04/04	9010B/9014
Aluminum	12,800	mg/kg	10/05/04	3050B/6010B
Antimony	<1.0	mg/kg	10/05/04	3050B/6010B
Arsenic	10.7	mg/kg	10/05/04	3050B/6010B
Barium	37.8	mg/kg	10/05/04	3050B/6010B
Beryllium	0.8	mg/kg	10/05/04	3050B/6010B
Cadmium	0.3	mg/kg	10/05/04	3050B/6010B
Calcium	36,800	mg/kg	10/05/04	3050B/6010B
Chromium	20.8	mg/kg	10/05/04	3050B/6010B
Cobalt	14.2	mg/kg	10/05/04	3050B/6010B
Copper	47.1	mg/kg	10/05/04	3050B/6010B
Iron	24,900	mg/kg	10/05/04	3050B/6010B
Lead	17.0	mg/kg	10/05/04	3050B/6010B
Magnesium	24,400	mg/kg	10/05/04	3050B/6010B
Manganese	352	mg/kg	10/05/04	3050B/6010B
Mercury	<0.05	mg/kg	10/04/04	7470A
Nickel	42.5	mg/kg	10/05/04	3050B/6010B
Potassium	3,030	mg/kg	10/05/04	3050B/6010B
Selenium	<0.2	mg/kg	10/05/04	3050B/6010B
Silver	0.2	mg/kg	10/05/04	3050B/6010B
Sodium	426	mg/kg	10/05/04	3050B/6010B
Thallium	<1.0	mg/kg	10/05/04	3050B/6010B
Vanadium	20.8	mg/kg	10/05/04	3050B/6010B
Zinc	63.2	mg/kg	10/05/04	3050B/6010B



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**Analytical Report**

Client: CLAYTON GROUP SERVICES  
Project ID: 15-04183.00-003  
Sample Number: 38325  
Sample Description: B-39/2  
Lab File ID: 38316-36

Date Received: 09/30/04  
Date Taken: 09/28/04  
Time Taken: 1124  
Date Reported: 10/08/04

Analyte	Result	Units	Flags
Solids, Total	82.34	%	

**Base-Neutral/Acid Compounds Method 3540C/8270C**

Preparation Date: 10/05/04  
Analysis Date: 10/06/04

Naphthalene	< 330	ug/kg	
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**Metals Method 3050B/6010B**

Analysis Date: 10/05/04

Lead	579	mg/kg	
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**Analytical Report**

Client: CLAYTON GROUP SERVICES  
Project ID: 15-04183.00-003  
Sample Number: 38326  
Sample Description: B-39/10  
Lab File ID: 38316-36

Date Received: 09/30/04  
Date Taken: 09/28/04  
Time Taken: 1304  
Date Reported: 10/08/04

Analyte	Result	Units	Flags
Solids, Total	81.78	%	
<b>TPH - Modified Method 8015B</b>			
Analysis Date:	10/05/04		
TPH Gasoline	< 10	mg/kg	
TPH Diesel	47	mg/kg	
TPH Oil	< 10	mg/kg	
TPH Total	47	mg/kg	



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**Analytical Report**

Client: CLAYTON GROUP SERVICES  
Project ID: 15-04183.00-003  
Sample Number: 38331  
Sample Description: B-41/2  
Lab File ID: 38316-36

Date Received: 09/30/04  
Date Taken: 09/09/04  
Time Taken: 1325  
Date Reported: 10/08/04

Analyte	Result	Units	Flags
Solids, Total	92.22	%	

**Base-Neutral/Acid Compounds Method 3540C/8270C**

Preparation Date: 10/05/04  
Analysis Date: 10/07/04

Naphthalene	703	ug/kg	
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**Metals Method 3050B/6010B**

Analysis Date: 10/05/04

Lead	6,900	mg/kg	
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**Analytical Report**

Client: CLAYTON GROUP SERVICES  
Project ID: 15-04183.00-003  
Sample Number: 38323  
Sample Description: B-42/9  
Lab File ID: 38316-36

Date Received: 09/30/04  
Date Taken: 09/29/04  
Time Taken: 1434  
Date Reported: 10/08/04

Analyte	Result	Units	Flags
Solids, Total	82.31	%	

**BTEX Method 5035A/8260B**

Analysis Date: 10/06/04

Benzene	< 2.0	ug/kg	
Toluene	< 5.0	ug/kg	
Ethyl benzene	< 5.0	ug/kg	
Xylenes (total)	< 5.0	ug/kg	

**Base-Neutral/Acid Compounds Method 3540C/8270C**

Preparation Date: 10/05/04

Analysis Date: 10/06/04

Acenaphthene	< 330	ug/kg	
Acenaphthylene	< 330	ug/kg	
Anthracene	< 330	ug/kg	
Benzidine	< 330	ug/kg	
Benzo[a]anthracene	< 330	ug/kg	
Benzo[b]fluoranthene	< 330	ug/kg	
Benzo[k]fluoranthene	< 330	ug/kg	
Benzo[g,h,i]perylene	< 330	ug/kg	
Benzo[a]pyrene	< 90	ug/kg	
Benzoic Acid	< 330	ug/kg	
Benzyl alcohol	< 330	ug/kg	
bis(2-Chloroethoxy)methane	< 330	ug/kg	
bis(2-Chloroethyl)ether	< 330	ug/kg	
bis(2-chloroisopropyl)ether	< 330	ug/kg	
bis(2-Ethylhexyl)phthalate	< 330	ug/kg	
4-Bromophenyl-phenylether	< 330	ug/kg	
Butylbenzylphthalate	< 330	ug/kg	
Carbazole	< 330	ug/kg	
4-Chloroaniline	< 330	ug/kg	



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## Analytical Report

Client: CLAYTON GROUP SERVICES  
Project ID: 15-04183.00-003  
Sample Number: 38323  
Sample Description: B-42/9  
Lab File ID: 38316-36

Date Received: 09/30/04  
Date Taken: 09/29/04  
Time Taken: 1434  
Date Reported: 10/08/04

Analyte	Result	Units	Flags
4-Chloro-3-methylphenol	< 330	ug/kg	
2-Chloronaphthalene	< 330	ug/kg	
2-Chlorophenol	< 330	ug/kg	
4-Chlorophenyl-phenylether	< 330	ug/kg	
Chrysene	< 330	ug/kg	
Dibenz[a,h]anthracene	< 90	ug/kg	
Dibenzofuran	< 330	ug/kg	
1,2-Dichlorobenzene	< 330	ug/kg	
1,3-Dichlorobenzene	< 330	ug/kg	
1,4-Dichlorobenzene	< 330	ug/kg	
3,3'-Dichlorobenzidine	< 660	ug/kg	
2,4-Dichlorophenol	< 330	ug/kg	
Diethylphthalate	< 330	ug/kg	
2,4-Dimethylphenol	< 330	ug/kg	
Dimethylphthalate	< 330	ug/kg	
Di-n-butylphthalate	< 330	ug/kg	
4,6-Dinitro-2-methylphenol	< 1,600	ug/kg	
2,4-Dinitrophenol	< 1,600	ug/kg	
2,4-Dinitrotoluene	< 250	ug/kg	
2,6-Dinitrotoluene	< 260	ug/kg	
Di-n-octylphthalate	< 330	ug/kg	
Fluoranthene	< 330	ug/kg	
Fluorene	< 330	ug/kg	
Hexachlorobenzene	< 330	ug/kg	
Hexachlorobutadiene	< 330	ug/kg	
Hexachlorocyclopentadiene	< 330	ug/kg	
Hexachloroethane	< 330	ug/kg	
Indeno[1,2,3-cd]pyrene	< 330	ug/kg	
Isophorone	< 330	ug/kg	
2-Methylnaphthalene	< 330	ug/kg	
2-Methylphenol	< 330	ug/kg	
3&4-Methylphenol	< 330	ug/kg	
Naphthalene	< 330	ug/kg	
2-Nitroaniline	< 1,600	ug/kg	



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## Analytical Report

Client: CLAYTON GROUP SERVICES  
Project ID: 15-04183.00-003  
Sample Number: 38323  
Sample Description: B-42/9  
Lab File ID: 38316-36

Date Received: 09/30/04  
Date Taken: 09/29/04  
Time Taken: 1434  
Date Reported: 10/08/04

Analyte	Result	Units	Flags
3-Nitroaniline	< 1,600	ug/kg	
4-Nitroaniline	< 1,600	ug/kg	
Nitrobenzene	< 260	ug/kg	
2-Nitrophenol	< 1,600	ug/kg	
4-Nitrophenol	< 1,600	ug/kg	
N-Nitrosodimethylamine	< 330	ug/kg	
N-Nitroso-di-n-propylamine	< 330	ug/kg	
n-Nitrosodiphenylamine	< 330	ug/kg	
Pentachlorophenol	< 330	ug/kg	
Phenanthrene	< 330	ug/kg	
Phenol	< 330	ug/kg	
Pyrene	< 330	ug/kg	
1,2,4-Trichlorobenzene	< 330	ug/kg	
2,4,5-Trichlorophenol	< 660	ug/kg	
2,4,6-Trichlorophenol	< 330	ug/kg	



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## Analytical Report

Client:	CLAYTON GROUP SERVICES		
Project ID:	15-04183.00-003	Date Received:	09/30/04
Sample Number:	38323	Date Taken:	09/29/04
Sample Description:	B-42/9	Time Taken:	1434
Lab File ID:	38316-36	Date Reported:	10/08/04

Analyte	Result	Units	Date Analyzed	Method
pH @ 25°C (1:10)	8.59	units	10/01/04	9045C
Cyanide	<0.10	mg/kg	10/04/04	9010B/9014
Aluminum	12,000	mg/kg	10/05/04	3050B/6010B
Antimony	<1.0	mg/kg	10/05/04	3050B/6010B
Arsenic	29.8	mg/kg	10/05/04	3050B/6010B
Barium	40.9	mg/kg	10/05/04	3050B/6010B
Beryllium	0.9	mg/kg	10/05/04	3050B/6010B
Cadmium	0.4	mg/kg	10/05/04	3050B/6010B
Calcium	42,400	mg/kg	10/05/04	3050B/6010B
Chromium	18.0	mg/kg	10/05/04	3050B/6010B
Cobalt	31.8	mg/kg	10/05/04	3050B/6010B
Copper	50.1	mg/kg	10/05/04	3050B/6010B
Iron	33,500	mg/kg	10/05/04	3050B/6010B
Lead	24.7	mg/kg	10/05/04	3050B/6010B
Magnesium	24,500	mg/kg	10/05/04	3050B/6010B
Manganese	482	mg/kg	10/05/04	3050B/6010B
Mercury	<0.05	mg/kg	10/04/04	7470A
Nickel	49.0	mg/kg	10/05/04	3050B/6010B
Potassium	2,660	mg/kg	10/05/04	3050B/6010B
Selenium	<0.2	mg/kg	10/05/04	3050B/6010B
Silver	<0.1	mg/kg	10/05/04	3050B/6010B
Sodium	409	mg/kg	10/05/04	3050B/6010B
Thallium	<1.0	mg/kg	10/05/04	3050B/6010B
Vanadium	21.4	mg/kg	10/05/04	3050B/6010B
Zinc	69.8	mg/kg	10/05/04	3050B/6010B



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**Analytical Report**

Client: CLAYTON GROUP SERVICES  
Project ID: 15-04183.00-003  
Sample Number: 38334  
Sample Description: B-44/1.5  
Lab File ID: 38316-36

Date Received: 09/30/04  
Date Taken: 09/29/04  
Time Taken: 1540  
Date Reported: 10/08/04

Analyte	Result	Units	Flags
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**Metals Method 3050B/6010B**

Analysis Date: 10/06/04

TCLP Lead	3.19	mg/L	
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## Analytical Report

Client: CLAYTON GROUP SERVICES  
Project ID: 15-04183.00-003  
Sample Number: 38318  
Sample Description: B-48/3  
Lab File ID: 38316-36

Date Received: 09/30/04  
Date Taken: 09/29/04  
Time Taken: 0737  
Date Reported: 10/08/04

Analyte	Result	Units	Flags
Solids, Total	74.57	%	

### BTEX Method 5035A/8260B

Analysis Date: 10/06/04

Benzene	< 2.0	ug/kg
Toluene	< 5.0	ug/kg
Ethyl benzene	< 5.0	ug/kg
Xylenes (total)	< 5.0	ug/kg
MTBE	< 5.0	ug/kg

### Polynuclear Aromatic Compounds Method 3540C/8270C

Preparation Date: 10/05/04

Analysis Date: 10/07/04

Naphthalene	185	ug/kg
Acenaphthylene	< 50	ug/kg
Acenaphthene	< 50	ug/kg
Fluorene	< 50	ug/kg
Phenanthrene	302	ug/kg
Anthracene	89	ug/kg
Fluoranthene	670	ug/kg
Pyrene	911	ug/kg
Benzo[a]anthracene	550	ug/kg
Chrysene	539	ug/kg
Benzo[b]fluoranthene	738	ug/kg
Benzo[k]fluoranthene	546	ug/kg
Benzo[a]pyrene	778	ug/kg
Indeno[1,2,3-cd]pyrene	523	ug/kg
Dibenz[a,h]anthracene	173	ug/kg
Benzo[g,h,i]perylene	395	ug/kg



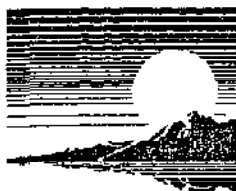
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**Analytical Report**

Client:	CLAYTON GROUP SERVICES	Date Received:	09/30/04
Project ID:	15-04183.00-003	Date Taken:	09/29/04
Sample Number:	38335	Time Taken:	1645
Sample Description:	B-54/4-6	Date Reported:	10/08/04
Lab File ID:	38316-36		

Analyte	Result	Units	Flags
Solids, Total	80.95	%	
<b>TPH - Modified Method 8015B</b>			
Analysis Date:	10/05/04		
TPH Gasoline	< 10	mg/kg	
TPH Diesel	13	mg/kg	
TPH Oil	< 10	mg/kg	
TPH Total	13	mg/kg	



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## Analytical Report

Client: CLAYTON GROUP SERVICES  
Project ID: 15-04183.00-003  
Sample Number: 38316  
Sample Description: B-62/3  
Lab File ID: 38316-36

Date Received: 09/30/04  
Date Taken: 09/29/04  
Time Taken: 0754  
Date Reported: 10/08/04

Analyte	Result	Units	Flags
Solids, Total	79.97	%	

### Polynuclear Aromatic Compounds Method 3540C/8270C

Preparation Date: 10/05/04  
Analysis Date: 10/07/04

Naphthalene	140	ug/kg	
Acenaphthylene	< 50	ug/kg	
Acenaphthene	< 50	ug/kg	
Fluorene	< 50	ug/kg	
Phenanthrene	752	ug/kg	
Anthracene	255	ug/kg	
Fluoranthene	1,570	ug/kg	
Pyrene	2,020	ug/kg	
Benzo[a]anthracene	1,180	ug/kg	
Chrysene	1,030	ug/kg	
Benzo[b]fluoranthene	1,260	ug/kg	
Benzo[k]fluoranthene	858	ug/kg	
Benzo[a]pyrene	1,410	ug/kg	
Indeno[1,2,3-cd]pyrene	867	ug/kg	
Dibenz[a,h]anthracene	293	ug/kg	
Benzo[g,h,i]perylene	739	ug/kg	



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**Analytical Report**

Client: CLAYTON GROUP SERVICES  
Project ID: 15-04183.00-003  
Sample Number: 38317  
Sample Description: B-62/8  
Lab File ID: 38316-36

Date Received: 09/30/04  
Date Taken: 09/29/04  
Time Taken: 0800  
Date Reported: 10/08/04

Analyte	Result	Units	Flags
Solids, Total	82.77	%	

**Polynuclear Aromatic Compounds Method 3540C/8270C**

Preparation Date: 10/07/04

Analysis Date: 10/08/04

Naphthalene	< 25	ug/kg
Acenaphthylene	< 50	ug/kg
Acenaphthene	< 50	ug/kg
Fluorene	< 50	ug/kg
Phenanthrene	< 50	ug/kg
Anthracene	< 50	ug/kg
Fluoranthene	< 50	ug/kg
Pyrene	< 50	ug/kg
Benzo[a]anthracene	< 8.7	ug/kg
Chrysene	< 50	ug/kg
Benzo[b]fluoranthene	< 11	ug/kg
Benzo[k]fluoranthene	< 11	ug/kg
Benzo[a]pyrene	< 15	ug/kg
Indeno[1,2,3-cd]pyrene	< 29	ug/kg
Dibenz[a,h]anthracene	< 20	ug/kg
Benzo[g,h,i]perylene	< 50	ug/kg



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## Analytical Report

Client: CLAYTON GROUP SERVICES  
Project ID: 15-04183.00-003  
Sample Number: 38333  
Sample Description: GW-29U  
Lab File ID: 38316-36

Date Received: 09/30/04  
Date Taken: 09/29/04  
Time Taken: 1520  
Date Reported: 10/08/04

Analyte	Result	Units	Flags
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### Polynuclear Aromatic Compounds Method 3510C/8270C

Preparation Date 10/04/04

Analysis Date: 10/04/04

Naphthalene	< 10	ug/L	
Acenaphthylene	< 10	ug/L	
Acenaphthene	< 10	ug/L	
Fluorene	< 2	ug/L	
Phenanthrene	< 5	ug/L	
Anthracene	< 5	ug/L	
Fluoranthene	< 2	ug/L	
Pyrene	< 2	ug/L	
Benzo[a]anthracene	0.55	ug/L	
Chrysene	< 1.5	ug/L	
Benzo[b]fluoranthene	0.70	ug/L	
Benzo[k]fluoranthene	0.59	ug/L	
Benzo[a]pyrene	0.8	ug/L	
Indeno[1,2,3-cd]pyrene	0.6	ug/L	
Dibenz[a,h]anthracene	< 0.3	ug/L	
Benzo[g,h,i]perylene	0.6	ug/L	



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**Analytical Report**

Client: CLAYTON GROUP SERVICES

Project ID: 15-04183.00-003

Sample Number: 38324

Sample Description: GW-29F

Lab File ID: 38316-36

Date Received: 09/30/04

Date Taken: 09/29/04

Time Taken: 1520

Date Reported: 10/08/04

Analyte	Result	Units	Flags
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**Polynuclear Aromatic Compounds Method 3510C/8270C**

Preparation Date 10/04/04

Analysis Date: 10/04/04

Naphthalene	< 10	ug/L	
Acenaphthylene	< 10	ug/L	
Acenaphthene	< 10	ug/L	
Fluorene	< 2	ug/L	
Phenanthrene	< 5	ug/L	
Anthracene	< 5	ug/L	
Fluoranthene	< 2	ug/L	
Pyrene	< 2	ug/L	
Benzo[a]anthracene	< 0.13	ug/L	
Chrysene	< 1.5	ug/L	
Benzo[b]fluoranthene	< 0.18	ug/L	
Benzo[k]fluoranthene	< 0.17	ug/L	
Benzo[a]pyrene	< 0.2	ug/L	
Indeno[1,2,3-cd]pyrene	< 0.3	ug/L	
Dibenz[a,h]anthracene	< 0.3	ug/L	
Benzo[g,h,i]perylene	< 0.4	ug/L	

CHAIN OF CUSTODY RECORD



First Environmental Laboratories  
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24 Hr. Pager (708) 569-7507  
E-mail: info@firstenv.com  
IEPA Certification# 100292

Company Name: Clayton Group Services  
Street Address: 3140 Finley Rd  
City: Downers Grove State: IL Zip: 60515  
Phone: 795-3200 Fax: 795-1130  
Send Report To: Marie Mueller  
Sampled By: Darren Lemmon, S. Peterson

Matrix Codes: S = Soil W = Water O = Other			Analyses										Comments	Lab ID.
Date/Time Taken	Sample Description	Matrix	P.A.s	B.T.G.	M.T.G.	S.V.C.s	P.C.B.	Target Metals *	PH	VOCs				
9/29 0754	B-62/3	S												38316
0800	B-62/8	S												17
0737	B-48/3	S		X										18
0840	B-34/3	S		X									Not Lead, PCBs, for Arsenic	
0914	B-31/3	S												19
8/28 1600	B-35/3	S												20
9/29 1050	B-38/9	S		X										21
1130	B-31/7	S												22
1350	B-31/11	S											HOLD	
1434	B-42/9	S		X										23
1436	B-42/11	S												
1520	GW-29F	W											HOLD	24

Cooler Temperature: 24 °C  
Received within 6 hrs. of collection: \_\_\_\_\_

Notes and Special Instructions: \* Russ Chadwick has list of target metals  
\* See attached table for Target Metals

Relinquished By: Don + C Date/Time: 9/29 1700 Received By: [Signature] Date/Time: 9/30/04 1245  
Relinquished By: \_\_\_\_\_ Date/Time: \_\_\_\_\_ Received By: \_\_\_\_\_ Date/Time: \_\_\_\_\_



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**CHAIN OF CUSTODY RECORD**

Page 2 of 3 pgs

Company Name: Cleaton  
Street Address: 3140 Finley Rd  
City: Downers Grove State: IL Zip: 60515  
Phone: 795-3200 Fax: 795-1130  
Send Report To: Battantor Marie Mueller  
Sampled By: Correa Lonsame, Sam Peterson

Matrix Codes: S = Soil W = Water O = Other		Analyses							Lab I.D.
Date/Time Taken	Sample Description	Matrix	Total Lead	TPH	Total Arsenic	PCBs	THA	Comments	
8/28 1124	B-39/2	S	X	X					38725
1304	B-39/10	S							26
1355	B-37/5	S							27
1540	B-36/5	S							28
9/29 0950	B-33/3	S							
9/29 1050	B-32/3	S							29
1050	B-38/11	S							30
1325	B-41/2	S							
1505	B-29/2	S							31
1520	GW-29U	W							32
									33

Cooler Temperature: 24 °C  
Received within 6 hrs. of collection: \_\_\_\_\_

Notes and Special Instructions: \_\_\_\_\_

Relinquished By: [Signature] Date/Time: 9/29/10 Received By: [Signature] Date/Time: 9/30/10  
Relinquished By: \_\_\_\_\_ Date/Time: \_\_\_\_\_ Received By: \_\_\_\_\_ Date/Time: \_\_\_\_\_



## CHAIN OF CUSTODY RECORD

Page 3 of 3 pgs

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E-mail: info@firstenv.com  
IEPA Certification# 100292

Company Name: Clayton Group Services

Street Address: 3140 Finley Rd

City: Downers Grove

**Phone:**

Send Report To: Marie Muesel

Sampled By: Dorsey Lamson, Sam Peterson

Project I.D.: 15-04183.00-004

P.O.#:

Matrix Codes: S = Soil W = Water O = Other

[illegible]Cooler Temperature:          °C

Received within 6 hrs. of collection; \_\_\_\_\_

**Notes and Special Instructions:**

**Relinquished By:**

Relinquished Re-

Date/Time 1/29/17

**Received By:**

Date/Time

Date/Time

Received By:

Date/Time



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October 11, 2004

Ms. Marie Mueller  
**CLAYTON GROUP SERVICES INC.**  
3140 Finley Road  
Downers Grove, IL 60515

Project ID: 15-04183.00-004  
First Environmental File ID: 38565-80  
Date Received: October 1<sup>st</sup>, 2004

Dear Ms. Mueller:

The above referenced project was analyzed as directed on the enclosed chain of custody record.

**PROJECT SUMMARY**


Analyses were performed in accordance with the methods found in the USEPA publication: Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW-846, 3<sup>rd</sup> Edition, December 1996. Specific method references are listed on the Analytical Report.

Results have been expressed on a dry weight basis per method protocol.

All analyses were performed within established holding times, and all Quality Control criteria as outlined in the methods and current IL ELAP/NELAP have been met. QA/QC documentation will remain on file for future reference.

I thank you for the opportunity to be of service and look forward to working with you again in the future. Should you have any questions regarding any of the enclosed analytical data, please contact me at (630) 778-1200.

Sincerely,

  
William H. Mottashed  
Project Manager



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**Analytical Report**

Client: CLAYTON GROUP SERVICES  
Project ID: 15-04183.00-004  
Sample Number: 38566  
Sample Description: B-40/2  
Lab File ID: 38565-80

Date Received: 10/01/04  
Date Taken: 09/30/04  
Time Taken: 755  
Date Reported: 10/11/04

Analyte	Result	Units	Flags
Solids, Total	81.38	%	

**Base-Neutral/Acid Compounds Method 3540C/8270C**

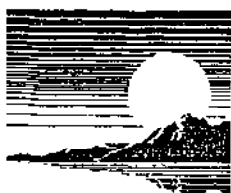
Preparation Date: 10/05/04  
Analysis Date: 10/08/04

Naphthalene	698	ug/kg	
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**Metals Method 3050B/6010B**

Analysis Date: 10/06/04

Lead	2,020	mg/kg	
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**Analytical Report**

Client:	CLAYTON GROUP SERVICES		
Project ID:	15-04183.00-004	Date Received:	10/01/04
Sample Number:	38576	Date Taken:	09/30/04
Sample Description:	B-43/2	Time Taken:	1206
Lab File ID:	38565-80	Date Reported:	10/11/04

Analyte	Result	Units	Flags
Solids, Total	88.36	%	

**Polynuclear Aromatic Compounds Method 3540C/8270C**

Preparation Date: 10/05/04

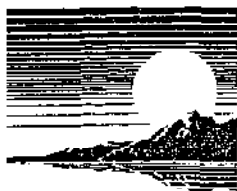
Analysis Date: 10/07/04

Naphthalene	128	ug/kg
Acenaphthylene	230	ug/kg
Acenaphthene	< 50	ug/kg
Fluorene	< 50	ug/kg
Phenanthrene	546	ug/kg
Anthracene	139	ug/kg
Fluoranthene	2,190	ug/kg
Pyrene	3,070	ug/kg
Benzo[a]anthracene	1,560	ug/kg
Chrysene	1,390	ug/kg
Benzo[b]fluoranthene	1,930	ug/kg
Benzo[k]fluoranthene	1,180	ug/kg
Benzo[a]pyrene	2,240	ug/kg
Indeno[1,2,3-cd]pyrene	1,160	ug/kg
Dibenz[a,h]anthracene	312	ug/kg
Benzo[g,h,i]perylene	896	ug/kg

**Metals Method 3010A/6010B**

Analysis Date: 10/07/04

TCLP Lead	< 0.002	mg/L
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**Analytical Report**

Client: CLAYTON GROUP SERVICES  
Project ID: 15-04183.00-004  
Sample Number: 38580  
Sample Description: B-45/2  
Lab File ID: 38565-80

Date Received: 10/01/04  
Date Taken: 09/30/04  
Time Taken: 1440  
Date Reported: 10/11/04

Analyte	Result	Units	Flags
Solids, Total	84.48	%	
<b>Metals Method 3050B/6010B</b>			
Analysis Date:	10/07/04		
TCLP Lead	0.012	mg/L	



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## Analytical Report

Client: CLAYTON GROUP SERVICES  
Project ID: 15-04183.00-004  
Sample Number: 38578  
Sample Description: B-46/8  
Lab File ID: 38565-80

Date Received: 10/01/04  
Date Taken: 09/30/04  
Time Taken: 1403  
Date Reported: 10/11/04

Analyte	Result	Units	Flags
Solids, Total	81.61	%	

### Base-Neutral/Acid Compounds Method 3540C/8270C

Preparation Date: 10/05/04

Analysis Date: 10/07/04

Acenaphthene	< 330	ug/kg	
Acenaphthylene	< 330	ug/kg	
Anthracene	< 330	ug/kg	
Benzidine	< 330	ug/kg	
Benzo[a]anthracene	< 330	ug/kg	
Benzo[b]fluoranthene	< 330	ug/kg	
Benzo[k]fluoranthene	< 330	ug/kg	
Benzo[g,h,i]perylene	< 330	ug/kg	
Benzo[a]pyrene	< 90	ug/kg	
Benzoic Acid	< 330	ug/kg	
Benzyl alcohol	< 330	ug/kg	
bis(2-Chloroethoxy)methane	< 330	ug/kg	
bis(2-Chloroethyl)ether	< 330	ug/kg	
bis(2-chloroisopropyl)ether	< 330	ug/kg	
bis(2-Ethylhexyl)phthalate	< 330	ug/kg	
4-Bromophenyl-phenylether	< 330	ug/kg	
Butylbenzylphthalate	< 330	ug/kg	
Carbazole	< 330	ug/kg	
4-Chloroaniline	< 330	ug/kg	
4-Chloro-3-methylphenol	< 330	ug/kg	
2-Chloronaphthalene	< 330	ug/kg	
2-Chlorophenol	< 330	ug/kg	
4-Chlorophenyl-phenylether	< 330	ug/kg	
Chrysene	< 330	ug/kg	
Dibenz[a,h]anthracene	< 90	ug/kg	
Dibenzofuran	< 330	ug/kg	
1,2-Dichlorobenzene	< 330	ug/kg	
1,3-Dichlorobenzene	< 330	ug/kg	



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## Analytical Report

Client: CLAYTON GROUP SERVICES  
Project ID: 15-04183.00-004  
Sample Number: 38578  
Sample Description: B-46/8  
Lab File ID: 38565-80

Date Received: 10/01/04  
Date Taken: 09/30/04  
Time Taken: 1403  
Date Reported: 10/11/04

Analyte	Result	Units	Flags
1,4-Dichlorobenzene	< 330	ug/kg	
3,3'-Dichlorobenzidine	< 660	ug/kg	
2,4-Dichlorophenol	< 330	ug/kg	
Diethylphthalate	< 330	ug/kg	
2,4-Dimethylphenol	< 330	ug/kg	
Dimethylphthalate	< 330	ug/kg	
Di-n-butylphthalate	< 330	ug/kg	
4,6-Dinitro-2-methylphenol	< 1,600	ug/kg	
2,4-Dinitrophenol	< 1,600	ug/kg	
2,4-Dinitrotoluene	< 250	ug/kg	
2,6-Dinitrotoluene	< 260	ug/kg	
Di-n-octylphthalate	< 330	ug/kg	
Fluoranthene	< 330	ug/kg	
Fluorene	< 330	ug/kg	
Hexachlorobenzene	< 330	ug/kg	
Hexachlorobutadiene	< 330	ug/kg	
Hexachlorocyclopentadiene	< 330	ug/kg	
Hexachloroethane	< 330	ug/kg	
Indeno[1,2,3-cd]pyrene	< 330	ug/kg	
Isophorone	< 330	ug/kg	
2-Methylnaphthalene	< 330	ug/kg	
2-Methylphenol	< 330	ug/kg	
3&4-Methylphenol	< 330	ug/kg	
Naphthalene	< 330	ug/kg	
2-Nitroaniline	< 1,600	ug/kg	
3-Nitroaniline	< 1,600	ug/kg	
4-Nitroaniline	< 1,600	ug/kg	
Nitrobenzene	< 260	ug/kg	
2-Nitrophenol	< 1,600	ug/kg	
4-Nitrophenol	< 1,600	ug/kg	
N-Nitrosodimethylamine	< 330	ug/kg	
N-Nitroso-di-n-propylamine	< 330	ug/kg	
n-Nitrosodiphenylamine	< 330	ug/kg	
Pentachlorophenol	< 330	ug/kg	



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## Analytical Report

Client: CLAYTON GROUP SERVICES  
Project ID: 15-04183.00-004  
Sample Number: 38578  
Sample Description: B-46/8  
Lab File ID: 38565-80

Date Received: 10/01/04  
Date Taken: 09/30/04  
Time Taken: 1403  
Date Reported: 10/11/04

Analyte	Result	Units	Flags
Phenanthrene	< 330	ug/kg	
Phenol	< 330	ug/kg	
Pyrene	< 330	ug/kg	
1,2,4-Trichlorobenzene	< 330	ug/kg	
2,4,5-Trichlorophenol	< 660	ug/kg	
2,4,6-Trichlorophenol	< 330	ug/kg	

Analyte	Result	Units	Date Analyzed	Method
pH @ 25°C (1:10)	8.47	units	10/05/04	9045C
Cyanide	<0.10	mg/kg	10/06/04	9010B/9014
Aluminum	17,400	mg/kg	10/06/04	3050B/6010B
Antimony	1.8	mg/kg	10/06/04	3050B/6010B
Arsenic	13.6	mg/kg	10/06/04	3050B/6010B
Barium	45.5	mg/kg	10/06/04	3050B/6010B
Beryllium	1.1	mg/kg	10/06/04	3050B/6010B
Cadmium	0.3	mg/kg	10/06/04	3050B/6010B
Calcium	46,100	mg/kg	10/06/04	3050B/6010B
Chromium	24.9	mg/kg	10/06/04	3050B/6010B
Cobalt	17.2	mg/kg	10/06/04	3050B/6010B
Copper	55.8	mg/kg	10/06/04	3050B/6010B
Iron	31,200	mg/kg	10/06/04	3050B/6010B
Lead	18.4	mg/kg	10/06/04	3050B/6010B
TCLP Lead	<0.002	mg/L	10/07/04	3010A/6010B
Magnesium	28,300	mg/kg	10/06/04	3050B/6010B
Manganese	559	mg/kg	10/06/04	3050B/6010B
Mercury	<0.05	mg/kg	10/04/04	7470A
Nickel	46.5	mg/kg	10/06/04	3050B/6010B
Potassium	4,530	mg/kg	10/07/04	3050B/6010B
Selenium	<0.2	mg/kg	10/06/04	3050B/6010B
Silver	0.2	mg/kg	10/06/04	3050B/6010B
Sodium	428	mg/kg	10/06/04	3050B/6010B
Thallium	<1.0	mg/kg	10/06/04	3050B/6010B
Vanadium	28.7	mg/kg	10/06/04	3050B/6010B
Zinc	65.8	mg/kg	10/06/04	3050B/6010B



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## Analytical Report

Client: CLAYTON GROUP SERVICES  
Project ID: 15-04183.00-004  
Sample Number: 38579  
Sample Description: B-46/10  
Lab File ID: 38565-80

Date Received: 10/01/04  
Date Taken: 09/30/04  
Time Taken: 1415  
Date Reported: 10/11/04

Analyte	Result	Units	Flags
Solids, Total	86.65	%	

### Base-Neutral/Acid Compounds Method 3540C/8270C

Preparation Date: 10/05/04

Analysis Date: 10/07/04

Acenaphthene	< 330	ug/kg	
Acenaphthylene	< 330	ug/kg	
Anthracene	< 330	ug/kg	
Benzidine	< 330	ug/kg	
Benzo[a]anthracene	< 330	ug/kg	
Benzo[b]fluoranthene	< 330	ug/kg	
Benzo[k]fluoranthene	< 330	ug/kg	
Benzo[g,h,i]perylene	< 330	ug/kg	
Benzo[a]pyrene	< 90	ug/kg	
Benzoic Acid	< 330	ug/kg	
Benzyl alcohol	< 330	ug/kg	
bis(2-Chloroethoxy)methane	< 330	ug/kg	
bis(2-Chloroethyl)ether	< 330	ug/kg	
bis(2-chloroisopropyl)ether	< 330	ug/kg	
bis(2-Ethylhexyl)phthalate	< 330	ug/kg	
4-Bromophenyl-phenylether	< 330	ug/kg	
Butylbenzylphthalate	< 330	ug/kg	
Carbazole	< 330	ug/kg	
4-Chloroaniline	< 330	ug/kg	
4-Chloro-3-methylphenol	< 330	ug/kg	
2-Chloronaphthalene	< 330	ug/kg	
2-Chlorophenol	< 330	ug/kg	
4-Chlorophenyl-phenylether	< 330	ug/kg	
Chrysene	< 330	ug/kg	
Dibenz[a,h]anthracene	< 90	ug/kg	
Dibenzofuran	< 330	ug/kg	
1,2-Dichlorobenzene	< 330	ug/kg	
1,3-Dichlorobenzene	< 330	ug/kg	



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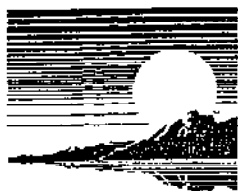
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## Analytical Report

Client: CLAYTON GROUP SERVICES  
Project ID: 15-04183.00-004  
Sample Number: 38579  
Sample Description: B-46/10  
Lab File ID: 38565-80

Date Received: 10/01/04  
Date Taken: 09/30/04  
Time Taken: 1415  
Date Reported: 10/11/04

Analyte	Result	Units	Flags
1,4-Dichlorobenzene	< 330	ug/kg	
3,3'-Dichlorobenzidine	< 660	ug/kg	
2,4-Dichlorophenol	< 330	ug/kg	
Diethylphthalate	< 330	ug/kg	
2,4-Dimethylphenol	< 330	ug/kg	
Dimethylphthalate	< 330	ug/kg	
Di-n-butylphthalate	< 330	ug/kg	
4,6-Dinitro-2-methylphenol	< 1,600	ug/kg	
2,4-Dinitrophenol	< 1,600	ug/kg	
2,4-Dinitrotoluene	< 250	ug/kg	
2,6-Dinitrotoluene	< 260	ug/kg	
Di-n-octylphthalate	< 330	ug/kg	
Fluoranthene	< 330	ug/kg	
Fluorene	< 330	ug/kg	
Hexachlorobenzene	< 330	ug/kg	
Hexachlorobutadiene	< 330	ug/kg	
Hexachlorocyclopentadiene	< 330	ug/kg	
Hexachloroethane	< 330	ug/kg	
Indeno[1,2,3-cd]pyrene	< 330	ug/kg	
Isophorone	< 330	ug/kg	
2-Methylnaphthalene	< 330	ug/kg	
2-Methylphenol	< 330	ug/kg	
3&4-Methylphenol	< 330	ug/kg	
Naphthalene	< 330	ug/kg	
2-Nitroaniline	< 1,600	ug/kg	
3-Nitroaniline	< 1,600	ug/kg	
4-Nitroaniline	< 1,600	ug/kg	
Nitrobenzene	< 260	ug/kg	
2-Nitrophenol	< 1,600	ug/kg	
4-Nitrophenol	< 1,600	ug/kg	
N-Nitrosodimethylamine	< 330	ug/kg	
N-Nitroso-di-n-propylamine	< 330	ug/kg	
n-Nitrosodiphenylamine	< 330	ug/kg	
Pentachlorophenol	< 330	ug/kg	



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## Analytical Report

Client: CLAYTON GROUP SERVICES  
Project ID: 15-04183.00-004  
Sample Number: 38579  
Sample Description: B-46/10  
Lab File ID: 38565-80

Date Received: 10/01/04  
Date Taken: 09/30/04  
Time Taken: 1415  
Date Reported: 10/11/04

Analyte	Result	Units	Flags
Phenanthrene	< 330	ug/kg	
Phenol	< 330	ug/kg	
Pyrene	< 330	ug/kg	
1,2,4-Trichlorobenzene	< 330	ug/kg	
2,4,5-Trichlorophenol	< 660	ug/kg	
2,4,6-Trichlorophenol	< 330	ug/kg	

Analyte	Result	Units	Date Analyzed	Method
pH @ 25°C (1:10)	8.60	units	10/05/04	9045C
Cyanide	<0.10	mg/kg	10/06/04	9010B/9014
Aluminum	11,200	mg/kg	10/06/04	3050B/6010B
Antimony	<1.0	mg/kg	10/06/04	3050B/6010B
Arsenic	10.6	mg/kg	10/06/04	3050B/6010B
Barium	44.9	mg/kg	10/06/04	3050B/6010B
Beryllium	0.8	mg/kg	10/06/04	3050B/6010B
Cadmium	0.9	mg/kg	10/06/04	3050B/6010B
Calcium	37,500	mg/kg	10/06/04	3050B/6010B
Chromium	17.0	mg/kg	10/06/04	3050B/6010B
Cobalt	24.4	mg/kg	10/06/04	3050B/6010B
Copper	38.6	mg/kg	10/06/04	3050B/6010B
Iron	20,900	mg/kg	10/06/04	3050B/6010B
Lead	19.6	mg/kg	10/06/04	3050B/6010B
TCLP Lead	0.022	mg/L	10/07/04	3010A/6010B
Magnesium	18,800	mg/kg	10/06/04	3050B/6010B
Manganese	607	mg/kg	10/06/04	3050B/6010B
Mercury	<0.05	mg/kg	10/04/04	7470A
Nickel	42.9	mg/kg	10/06/04	3050B/6010B
Potassium	2,860	mg/kg	10/07/04	3050B/6010B
Selenium	<0.2	mg/kg	10/06/04	3050B/6010B
Silver	0.1	mg/kg	10/06/04	3050B/6010B
Sodium	382	mg/kg	10/06/04	3050B/6010B
Thallium	<1.0	mg/kg	10/06/04	3050B/6010B
Vanadium	18.5	mg/kg	10/06/04	3050B/6010B
Zinc	58.0	mg/kg	10/06/04	3050B/6010B



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**Analytical Report**

Client: CLAYTON GROUP SERVICES  
Project ID: 15-04183.00-004  
Sample Number: 38577  
Sample Description: B-47/3  
Lab File ID: 38565-80

Date Received: 10/01/04  
Date Taken: 09/30/04  
Time Taken: 1323  
Date Reported: 10/11/04

Analyte	Result	Units	Flags
Solids, Total	85.19	%	
<b>BTEX Method 5035A/8260B</b>			
Analysis Date:	10/07/04		
Benzene	< 2.0	ug/kg	
Toluene	< 5.0	ug/kg	
Ethyl benzene	< 5.0	ug/kg	
Xylenes (total)	< 5.0	ug/kg	



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**Analytical Report**

Client: CLAYTON GROUP SERVICES  
Project ID: 15-04183.00-004  
Sample Number: 38575  
Sample Description: B-49/3  
Lab File ID: 38565-80

Date Received: 10/01/04  
Date Taken: 09/30/04  
Time Taken: 1129  
Date Reported: 10/11/04

Analyte	Result	Units	Flags
Solids, Total	69.58	%	

**BTEX Method 5035A/8260B**

Analysis Date: 10/07/04

Benzene	< 2.0	ug/kg	
Toluene	< 5.0	ug/kg	
Ethyl benzene	< 5.0	ug/kg	
Xylenes (total)	< 5.0	ug/kg	

**Metals Method 3050B/6010B**

Analysis Date: 10/06/04

Lead	5,180	mg/kg	
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**Analytical Report**

Client: CLAYTON GROUP SERVICES

Project ID: 15-04183.00-004

Sample Number: 38565

Sample Description: B-52/2

Lab File ID: 38565-80

Date Received: 10/01/04

Date Taken: 09/30/04

Time Taken: 735

Date Reported: 10/11/04

Analyte	Result	Units	Flags
Solids, Total	92.27	%	
<b>Metals Method 3050B/6010B</b>			
Analysis Date:	10/06/04		
Lead	2,700	mg/kg	



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## Analytical Report

Client:	CLAYTON GROUP SERVICES	Date Received:	10/01/04
Project ID:	15-04183.00-004	Date Taken:	09/30/04
Sample Number:	38571	Time Taken:	1014
Sample Description:	B-53/4	Date Reported:	10/11/04
Lab File ID:	38565-80		

Analyte	Result	Units	Date Analyzed	Method
Solids, Total	97.08	%		
pH @ 25°C (1:10)	8.73	units	10/05/04	9045C
Cyanide	<0.10	mg/kg	10/06/04	9010B/9014
Aluminum	637	mg/kg	10/06/04	3050B/6010B
Antimony	<1.0	mg/kg	10/06/04	3050B/6010B
Arsenic	1.2	mg/kg	10/06/04	3050B/6010B
Barium	4.0	mg/kg	10/06/04	3050B/6010B
Beryllium	<0.1	mg/kg	10/06/04	3050B/6010B
Cadmium	0.2	mg/kg	10/06/04	3050B/6010B
Calcium	1,330	mg/kg	10/06/04	3050B/6010B
Chromium	1.4	mg/kg	10/06/04	3050B/6010B
Cobalt	0.8	mg/kg	10/06/04	3050B/6010B
Copper	6.0	mg/kg	10/06/04	3050B/6010B
Iron	1,680	mg/kg	10/06/04	3050B/6010B
Lead	5.4	mg/kg	10/06/04	3050B/6010B
Magnesium	862	mg/kg	10/06/04	3050B/6010B
Manganese	31.3	mg/kg	10/06/04	3050B/6010B
Mercury	<0.05	mg/kg	10/04/04	7470A
Nickel	1.9	mg/kg	10/06/04	3050B/6010B
Potassium	73.9	mg/kg	10/06/04	3050B/6010B
Selenium	<0.2	mg/kg	10/06/04	3050B/6010B
Silver	<0.1	mg/kg	10/06/04	3050B/6010B
Sodium	66.7	mg/kg	10/06/04	3050B/6010B
Thallium	<1.0	mg/kg	10/06/04	3050B/6010B
Vanadium	2.0	mg/kg	10/06/04	3050B/6010B
Zinc	122	mg/kg	10/06/04	3050B/6010B



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## Analytical Report

Client: CLAYTON GROUP SERVICES  
Project ID: 15-04183.00-004  
Sample Number: 38574  
Sample Description: B-55/2  
Lab File ID: 38565-80

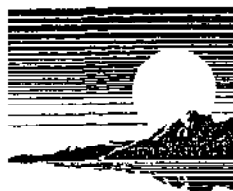
Date Received: 10/01/04  
Date Taken: 09/30/04  
Time Taken: 1104  
Date Reported: 10/11/04

Analyte	Result	Units	Flags
Solids, Total	90.88	%	

### Base-Neutral/Acid Compounds Method 3540C/8270C

Preparation Date: 10/05/04  
Analysis Date: 10/08/04

Acenaphthene	< 330	ug/kg	
Acenaphthylene	< 330	ug/kg	
Anthracene	< 330	ug/kg	
Benzidine	< 330	ug/kg	
Benzo[a]anthracene	791	ug/kg	
Benzo[b]fluoranthene	734	ug/kg	
Benzo[k]fluoranthene	604	ug/kg	
Benzo[g,h,i]perylene	408	ug/kg	
Benzo[a]pyrene	766	ug/kg	
Benzoic Acid	< 330	ug/kg	
Benzyl alcohol	< 330	ug/kg	
bis(2-Chloroethoxy)methane	< 330	ug/kg	
bis(2-Chloroethyl)ether	< 330	ug/kg	
bis(2-chloroisopropyl)ether	< 330	ug/kg	
bis(2-Ethylhexyl)phthalate	< 330	ug/kg	
4-Bromophenyl-phenylether	< 330	ug/kg	
Butylbenzylphthalate	< 330	ug/kg	
Carbazole	< 330	ug/kg	
4-Chloroaniline	< 330	ug/kg	
4-Chloro-3-methylphenol	< 330	ug/kg	
2-Chloronaphthalene	< 330	ug/kg	
2-Chlorophenol	< 330	ug/kg	
4-Chlorophenyl-phenylether	< 330	ug/kg	
Chrysene	887	ug/kg	
Dibenz[a,h]anthracene	171	ug/kg	
Dibenzofuran	< 330	ug/kg	
1,2-Dichlorobenzene	< 330	ug/kg	



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## Analytical Report

Client: CLAYTON GROUP SERVICES  
Project ID: 15-04183.00-004  
Sample Number: 38574  
Sample Description: B-55/2  
Lab File ID: 38565-80

Date Received: 10/01/04  
Date Taken: 09/30/04  
Time Taken: 1104  
Date Reported: 10/11/04

Analyte	Result	Units	Flags
1,3-Dichlorobenzene	< 330	ug/kg	
1,4-Dichlorobenzene	< 330	ug/kg	
3,3'-Dichlorobenzidine	< 660	ug/kg	
2,4-Dichlorophenol	< 330	ug/kg	
Diethylphthalate	< 330	ug/kg	
2,4-Dimethylphenol	< 330	ug/kg	
Dimethylphthalate	< 330	ug/kg	
Di-n-butylphthalate	< 330	ug/kg	
4,6-Dinitro-2-methylphenol	< 1,600	ug/kg	
2,4-Dinitrophenol	< 1,600	ug/kg	
2,4-Dinitrotoluene	< 250	ug/kg	
2,6-Dinitrotoluene	< 260	ug/kg	
Di-n-octylphthalate	< 330	ug/kg	
Fluoranthene	1,450	ug/kg	
Fluorene	< 330	ug/kg	
Hexachlorobenzene	< 330	ug/kg	
Hexachlorobutadiene	< 330	ug/kg	
Hexachlorocyclopentadiene	< 330	ug/kg	
Hexachloroethane	< 330	ug/kg	
Indeno[1,2,3-cd]pyrene	392	ug/kg	
Isophorone	< 330	ug/kg	
2-Methylnaphthalene	< 330	ug/kg	
2-Methylphenol	< 330	ug/kg	
3&4-Methylphenol	< 330	ug/kg	
Naphthalene	< 330	ug/kg	
2-Nitroaniline	< 1,600	ug/kg	
3-Nitroaniline	< 1,600	ug/kg	
4-Nitroaniline	< 1,600	ug/kg	
Nitrobenzene	< 260	ug/kg	
2-Nitrophenol	< 1,600	ug/kg	
4-Nitrophenol	< 1,600	ug/kg	
N-Nitrosodimethylamine	< 330	ug/kg	
N-Nitroso-di-n-propylamine	< 330	ug/kg	



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## Analytical Report

Client: CLAYTON GROUP SERVICES  
Project ID: 15-04183.00-004  
Sample Number: 38574  
Sample Description: B-55/2  
Lab File ID: 38565-80

Date Received: 10/01/04  
Date Taken: 09/30/04  
Time Taken: 1104  
Date Reported: 10/11/04

Analyte	Result	Units	Flags
n-Nitrosodiphenylamine	< 330	ug/kg	
Pentachlorophenol	< 330	ug/kg	
Phenanthrene	996	ug/kg	
Phenol	< 330	ug/kg	
Pyrene	1,370	ug/kg	
1,2,4-Trichlorobenzene	< 330	ug/kg	
2,4,5-Trichlorophenol	< 660	ug/kg	
2,4,6-Trichlorophenol	< 330	ug/kg	

Analyte	Result	Units	Date Analyzed	Method
pH @ 25°C (1:10)	8.23	units	10/05/04	9045C
Cyanide	0.40	mg/kg	10/06/04	9010B/9014
Aluminum	10,900	mg/kg	10/06/04	3050B/6010B
Antimony	9.7	mg/kg	10/06/04	3050B/6010B
Arsenic	10.4	mg/kg	10/06/04	3050B/6010B
Barium	85.8	mg/kg	10/06/04	3050B/6010B
Beryllium	1.3	mg/kg	10/06/04	3050B/6010B
Cadmium	18.7	mg/kg	10/06/04	3050B/6010B
Calcium	30,000	mg/kg	10/06/04	3050B/6010B
Chromium	25.2	mg/kg	10/06/04	3050B/6010B
Cobalt	12.0	mg/kg	10/06/04	3050B/6010B
Copper	463	mg/kg	10/06/04	3050B/6010B
Iron	27,500	mg/kg	10/06/04	3050B/6010B
Lead	645	mg/kg	10/06/04	3050B/6010B
Magnesium	15660	mg/kg	10/06/04	3050B/6010B
Manganese	619	mg/kg	10/06/04	3050B/6010B
Mercury	0.42	mg/kg	10/04/04	7470A
Nickel	40.2	mg/kg	10/06/04	3050B/6010B
Potassium	2,050	mg/kg	10/07/04	3050B/6010B
Selenium	<0.2	mg/kg	10/06/04	3050B/6010B
Silver	1.0	mg/kg	10/06/04	3050B/6010B
Sodium	681	mg/kg	10/06/04	3050B/6010B
Thallium	<1.0	mg/kg	10/06/04	3050B/6010B
Vanadium	22.0	mg/kg	10/06/04	3050B/6010B
Zinc	1,760	mg/kg	10/07/04	3050B/6010B



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**Analytical Report**

Client: CLAYTON GROUP SERVICES  
Project ID: 15-04183.00-004  
Sample Number: 38572  
Sample Description: B-56/2  
Lab File ID: 38565-80

Date Received: 10/01/04  
Date Taken: 09/30/04  
Time Taken: 1035  
Date Reported: 10/11/04

Analyte	Result	Units	Flags
Solids, Total	83.60	%	

**Metals Method 3050B/6010B**

Analysis Date: 10/06/04

Lead	311	mg/kg	
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**Analytical Report**

Client: CLAYTON GROUP SERVICES

Project ID: 15-04183.00-004

Sample Number: 38573

Sample Description: B-57/2

Lab File ID: 38565-80

Date Received: 10/01/04

Date Taken: 09/30/04

Time Taken: 1047

Date Reported: 10/11/04

Analyte	Result	Units	Flags
Solids, Total	80.38	%	
<b>Metals Method 3050B/6010B</b>			
Analysis Date:	10/06/04		
Lead	407	mg/kg	



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**Analytical Report**

Client: CLAYTON GROUP SERVICES  
Project ID: 15-04183.00-004  
Sample Number: 38570  
Sample Description: B-58/2  
Lab File ID: 38565-80

Date Received: 10/01/04  
Date Taken: 09/30/04  
Time Taken: 1006  
Date Reported: 10/11/04

Analyte	Result	Units	Flags
Solids, Total	92.21	%	
<b>Metals Method 3050B/6010B</b>			
Analysis Date:	10/06/04		
Lead	431	mg/kg	



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**Analytical Report**

Client: CLAYTON GROUP SERVICES  
Project ID: 15-04183.00-004  
Sample Number: 38567  
Sample Description: B-59/12  
Lab File ID: 38565-80

Date Received: 10/01/04  
Date Taken: 09/30/04  
Time Taken: 0850  
Date Reported: 10/11/04

Analyte	Result	Units	Flags
Solids, Total	82.98	%	

**Polynuclear Aromatic Compounds Method 3540C/8270C**

Preparation Date: 10/05/04  
Analysis Date: 10/07/04

Naphthalene	< 25	ug/kg	
Acenaphthylene	< 50	ug/kg	
Acenaphthene	< 50	ug/kg	
Fluorene	< 50	ug/kg	
Phenanthrene	< 50	ug/kg	
Anthracene	< 50	ug/kg	
Fluoranthene	< 50	ug/kg	
Pyrene	< 50	ug/kg	
Benzo[a]anthracene	< 8.7	ug/kg	
Chrysene	< 50	ug/kg	
Benzo[b]fluoranthene	< 11	ug/kg	
Benzo[k]fluoranthene	< 11	ug/kg	
Benzo[a]pyrene	< 15	ug/kg	
Indeno[1,2,3-cd]pyrene	< 29	ug/kg	
Dibenz[a,h]anthracene	< 20	ug/kg	
Benzo[g,h,i]perylene	< 50	ug/kg	

**Metals Method 3050B/6010B**

Analysis Date: 10/06/04

Lead	18.2	mg/kg
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## Analytical Report

Client:	CLAYTON GROUP SERVICES		
Project ID:	15-04183.00-004	Date Received:	10/01/04
Sample Number:	38569	Date Taken:	09/30/04
Sample Description:	B-60/5	Time Taken:	0930
Lab File ID:	38565-80	Date Reported:	10/11/04

Analyte	Result	Units	Flags
Solids, Total	93.56	%	

### Polynuclear Aromatic Compounds Method 3540C/8270C

Preparation Date: 10/05/04

Analysis Date: 10/07/04

Naphthalene	284	ug/kg
Acenaphthylene	107	ug/kg
Acenaphthene	533	ug/kg
Fluorene	640	ug/kg
Phenanthrene	3,290	ug/kg
Anthracene	1,050	ug/kg
Fluoranthene	4,160	ug/kg
Pyrene	4,940	ug/kg
Benzo[a]anthracene	2,470	ug/kg
Chrysene	2,290	ug/kg
Benzo[b]fluoranthene	1,710	ug/kg
Benzo[k]fluoranthene	2,660	ug/kg
Benzo[a]pyrene	2,790	ug/kg
Indeno[1,2,3-cd]pyrene	1,870	ug/kg
Dibenz[a,h]anthracene	693	ug/kg
Benzo[g,h,i]perylene	1510	ug/kg

### Metals Method 3050B/6010B

Analysis Date: 10/06/04

Lead	133	mg/kg
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**Analytical Report**

Client: CLAYTON GROUP SERVICES  
Project ID: 15-04183.00-004  
Sample Number: 38568  
Sample Description: B-61/5  
Lab File ID: 38565-80

Date Received: 10/01/04  
Date Taken: 09/30/04  
Time Taken: 0912  
Date Reported: 10/11/04

Analyte	Result	Units	Flags
Solids, Total	97.13	%	

**Polynuclear Aromatic Compounds Method 3540C/8270C**

Preparation Date: 10/05/04  
Analysis Date: 10/07/04

Naphthalene	103	ug/kg	
Acenaphthylene	< 50	ug/kg	
Acenaphthene	339	ug/kg	
Fluorene	46	ug/kg	
Phenanthrene	3,600	ug/kg	
Anthracene	1,220	ug/kg	
Fluoranthene	5,320	ug/kg	
Pyrene	5,840	ug/kg	
Benzo[a]anthracene	2,720	ug/kg	
Chrysene	2,410	ug/kg	
Benzo[b]fluoranthene	2,300	ug/kg	
Benzo[k]fluoranthene	2,940	ug/kg	
Benzo[a]pyrene	3,680	ug/kg	
Indeno[1,2,3-cd]pyrene	1,950	ug/kg	
Dibenz[a,h]anthracene	581	ug/kg	
Benzo[g,h,i]perylene	1,610	ug/kg	

**Metals Method 3050B/6010B**

Analysis Date: 10/06/04

Lead	17.6	mg/kg
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CHAIN OF CUSTODY RECORD



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24 Hr. Pager (708) 569-7507  
E-mail: info@firstenv.com  
IEPA Certification# 100292

Company Name: Clayton Group Services  
Street Address: 3140 Finley Rd  
City: Dawson Grove State: IL Zip: 60515  
Phone: 795-3200 Fax: 795-1130  
Send Report To: Melie Mueller  
Sampled By: Darren Lawrence, Sam Peterson

Matrix Codes: S = Soil W = Water O = Other			Analyses						Comments	Lab ID.
Date/Time Taken	Sample Description	Matrix	Total Lead	Naphthalene	PAHs	Major Metals	SVOCs	Pb		
9/30 0735	B-52/2	S	X							38161
0755	B-40/2	S	X							66
0850	B-59/12	S	X							67
0900	B-59/15	S	X						HOLD	
0912	B-61/5	S	X							68
0930	B-60/5	S	X							69
1006	B-58/2	S	X							70
1014	B-53/4	S	X							71
1022	B-53/12	S	X						HOLD	
1035	B-56/2	S	X							72
1047	B-57/2	S	X							73
1104	B-55/2	S				X	X	X		74

Cooler Temperature: ~4 °C  
Received within 6 hrs. of collection: \_\_\_\_\_

Notes and Special Instructions: \_\_\_\_\_

Relinquished By: Shawn Date/Time 10/1 0700 Received By: [Signature] Date/Time 10/1/09 1:45  
Relinquished By: \_\_\_\_\_ Date/Time \_\_\_\_\_ Received By: \_\_\_\_\_ Date/Time \_\_\_\_\_

Project I.D.: 15-04183, 00-004

P.O. #:

**Matrix Codes: S = Soil W = Water O = Other**

[illegible]

Cooler Temperature: 10 °C  
Received within 6 hrs. of collection:           

**Notes and Special Instructions:**

Relinquished By: \_\_\_\_\_

John W. Z.

Date/Time

07020

Received By:

Relinquished By: \_\_\_\_\_

---

Date/Time \_\_\_\_\_

1

Received By:



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October 14, 2004

Ms. Marie Mueller  
**CLAYTON GROUP SERVICES INC.**  
3140 Finley Road  
Downers Grove, IL 60515

Project ID: 15-04183.00-004  
First Environmental File ID: 38882-83  
Date Received: September 28, 2004

Dear Ms. Mueller:

The above referenced project was analyzed as per your request on October 7, 2004.

**PROJECT SUMMARY**

Analyses were performed in accordance with the methods found in the USEPA publication: Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW-846, 3<sup>rd</sup> Edition, December 1996. Specific method references are listed on the Analytical Report.

Results have been expressed on a dry weight basis per method protocol.

All analyses were performed within established holding times, and all Quality Control criteria as outlined in the methods and current IL ELAP/NELAP have been met. QA/QC documentation will remain on file for future reference.

I thank you for the opportunity to be of service and look forward to working with you again in the future. Should you have any questions regarding any of the enclosed analytical data, please contact me at (630) 778-1200.

Sincerely,

William H. Mottashed  
Project Manager



# First Environmental Laboratories, Inc.

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IL ELAP / NELAC Accreditation # 100292

## Analytical Report

Client: CLAYTON GROUP SERVICES  
Project ID: 15-04183.00-004  
Sample Number: 38883  
Sample Description: B-50/4-6  
Lab File ID: 38882-83

Date Received: 09/28/04  
Date Taken: 09/28/04  
Time Taken: 9:08  
Date Reported: 10/14/04

Analyte	Result	Units	Flags
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### Polynuclear Aromatic Compounds Method 3540C/8270C

Preparation Date: 10/11/04  
Analysis Date: 10/12/04

Naphthalene	1,940	ug/kg	
Acenaphthylene	936	ug/kg	
Acenaphthene	2,690	ug/kg	
Fluorene	3,450	ug/kg	
Phenanthrene	22,800	ug/kg	
Anthracene	7,720	ug/kg	
Fluoranthene	29,500	ug/kg	
Pyrene	39,100	ug/kg	
Benzo[a]anthracene	15,200	ug/kg	
Chrysene	14,300	ug/kg	
Benzo[b]fluoranthene	13,300	ug/kg	
Benzo[k]fluoranthene	14,800	ug/kg	
Benzo[a]pyrene	25,400	ug/kg	
Indeno[1,2,3-cd]pyrene	13,200	ug/kg	
Dibenz[a,h]anthracene	3,970	ug/kg	
Benzo[g,h,i]perylene	12,800	ug/kg	



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## Analytical Report

Client: CLAYTON GROUP SERVICES  
Project ID: 15-04183.00-004  
Sample Number: 38882  
Sample Description: B-51/2-4  
Lab File ID: 38882-83

Date Received: 09/28/04  
Date Taken: 09/28/04  
Time Taken: 9:00  
Date Reported: 10/14/04

Analyte	Result	Units	Flags
<b>Polynuclear Aromatic Compounds Method 3540C/8270C</b>			
Preparation Date:	10/11/04		
Analysis Date:	10/12/04		
Naphthalene	565	ug/kg	
Acenaphthylene	153	ug/kg	
Acenaphthene	344	ug/kg	
Fluorene	680	ug/kg	
Phenanthrene	2,930	ug/kg	
Anthracene	733	ug/kg	
Fluoranthene	2,470	ug/kg	
Pyrene	2,020	ug/kg	
Benzo[a]anthracene	1,530	ug/kg	
Chrysene	1,440	ug/kg	
Benzo[b]fluoranthene	1,160	ug/kg	
Benzo[k]fluoranthene	970	ug/kg	
Benzo[a]pyrene	1,880	ug/kg	
Indeno[1,2,3-cd]pyrene	901	ug/kg	
Dibenz[a,h]anthracene	244	ug/kg	
Benzo[g,h,i]perylene	947	ug/kg	

## CHAIN OF CUSTODY RECORD



**First  
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24 Hr. Pager (708) 569-7507  
E-mail: [info@firsteur.com](mailto:info@firsteur.com)  
TEVA Certification# 100232

Company Name: Cloyen Group Services

3140 Finley Rd.  
Street Address

STREET ADDRESS: 6509 E 60515  
CITY: DENVER CO 80202  
STATE: CO  
ZIP: 80202

Phone: 775-3200

Sand Dams To Stop Marine Invasions

Sampled By: Debra Bennett, Sam Pearson

Project ID: 15-04183.00-004  
P.O. #:

[illegible]

Cooler Temperature: 6°C outside  
Received within 6 hrs. of collection:       

10 - Filter the Filtered GW-30 sample

**Notes and Special Instructions:**

Relinquished By: S. J. At Date/Time: 06/28/04 9:55 Received By: William M. Reed Date/Time: 7/2/04 11:55



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October 19, 2004

Ms. Marie Mueller  
**CLAYTON GROUP SERVICES INC.**  
3140 Finley Road  
Downers Grove, IL 60515

Project ID: 15-04183.00-004  
First Environmental File ID: 39379-80  
Date Received: September 30, 2004

Dear Ms. Mueller:

The above referenced project was analyzed as per your request on October 12, 2004.

**PROJECT SUMMARY**

Analyses were performed in accordance with the methods found in the USEPA publication: Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW-846, 3<sup>rd</sup> Edition, December 1996. Specific method references are listed on the Analytical Report.

Results have been expressed on a dry weight basis per method protocol.

I thank you for the opportunity to be of service and look forward to working with you again in the future. Should you have any questions regarding any of the enclosed analytical data, please contact me at (630) 778-1200.

Sincerely,

William H. Mottashed  
Project Manager



# First Environmental Laboratories, Inc.

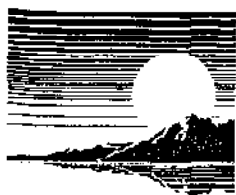
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## Analytical Report

Client: CLAYTON GROUP SERVICES  
Project ID: 15-04183.00-003  
Sample Number: 39379  
Sample Description: B-31/7  
Lab File ID: 39379-80

Date Received: 09/30/04  
Date Taken: 09/29/04  
Time Taken: 1130  
Date Reported: 10/19/04

Analyte	Result	Units	Date Analyzed	Method
pH @ 25°C (1:10)	8.30	units	10/13/04	9045C
Cyanide	<0.10	mg/kg	10/15/04	9010B/9014
Aluminum	12,800	mg/kg	10/19/04	3050B/6010B
Antimony	<1.0	mg/kg	10/19/04	3050B/6010B
Arsenic	13.3	mg/kg	10/19/04	3050B/6010B
Barium	36.6	mg/kg	10/19/04	3050B/6010B
Beryllium	0.9	mg/kg	10/19/04	3050B/6010B
Cadmium	0.6	mg/kg	10/19/04	3050B/6010B
Calcium	75,500	mg/kg	10/19/04	3050B/6010B
Chromium	18.4	mg/kg	10/19/04	3050B/6010B
Cobalt	14.7	mg/kg	10/19/04	3050B/6010B
Copper	48.4	mg/kg	10/19/04	3050B/6010B
Iron	32,500	mg/kg	10/19/04	3050B/6010B
Lead	22.1	mg/kg	10/19/04	3050B/6010B
Magnesium	43,400	mg/kg	10/19/04	3050B/6010B
Manganese	431	mg/kg	10/19/04	3050B/6010B
Mercury	<0.05	mg/kg	10/13/04	7470A
Nickel	43.6	mg/kg	10/19/04	3050B/6010B
Potassium	3,280	mg/kg	10/19/04	3050B/6010B
Selenium	<0.2	mg/kg	10/19/04	3050B/6010B
Silver	<0.1	mg/kg	10/19/04	3050B/6010B
Sodium	564	mg/kg	10/19/04	3050B/6010B
Thallium	<1.0	mg/kg	10/19/04	3050B/6010B
Vanadium	28.7	mg/kg	10/19/04	3050B/6010B
Zinc	66.0	mg/kg	10/19/04	3050B/6010B



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## Analytical Report

Client: CLAYTON GROUP SERVICES  
Project ID: 15-04183.00-003  
Sample Number: 39379  
Sample Description: B-31/7  
Lab File ID: 39379-80

Date Received: 09/30/04  
Date Taken: 09/29/04  
Time Taken: 1130  
Date Reported: 10/19/04

Analyte	Result	Units	Flags
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### Base-Neutral/Acid Compounds Method 3540C/8270C

Preparation Date: 10/14/04

Analysis Date: 10/15/04

Acenaphthene	< 330	ug/kg	
Acenaphthylene	< 330	ug/kg	
Anthracene	< 330	ug/kg	
Benzidine	< 330	ug/kg	
Benzo[a]anthracene	< 330	ug/kg	
Benzo[b]fluoranthene	< 330	ug/kg	
Benzo[k]fluoranthene	< 330	ug/kg	
Benzo[g,h,i]perylene	< 330	ug/kg	
Benzo[a]pyrene	< 90	ug/kg	
Benzoic Acid	< 330	ug/kg	
Benzyl alcohol	< 330	ug/kg	
bis(2-Chloroethoxy)methane	< 330	ug/kg	
bis(2-Chloroethyl)ether	< 330	ug/kg	
bis(2-chloroisopropyl)ether	< 330	ug/kg	
bis(2-Ethylhexyl)phthalate	< 330	ug/kg	
4-Bromophenyl-phenylether	< 330	ug/kg	
Butylbenzylphthalate	< 330	ug/kg	
Carbazole	< 330	ug/kg	
4-Chloroaniline	< 330	ug/kg	
4-Chloro-3-methylphenol	< 330	ug/kg	
2-Chloronaphthalene	< 330	ug/kg	
2-Chlorophenol	< 330	ug/kg	
4-Chlorophenyl-phenylether	< 330	ug/kg	
Chrysene	< 330	ug/kg	
Dibenz[a,h]anthracene	< 90	ug/kg	
Dibenzofuran	< 330	ug/kg	
1,2-Dichlorobenzene	< 330	ug/kg	
1,3-Dichlorobenzene	< 330	ug/kg	
1,4-Dichlorobenzene	< 330	ug/kg	
3,3'-Dichlorobenzidine	< 660	ug/kg	
2,4-Dichlorophenol	< 330	ug/kg	
Diethylphthalate	< 330	ug/kg	



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## Analytical Report

Client: CLAYTON GROUP SERVICES  
Project ID: 15-04183.00-003  
Sample Number: 39379  
Sample Description: B-31/7  
Lab File ID: 39379-80

Date Received: 09/30/04  
Date Taken: 09/29/04  
Time Taken: 1130  
Date Reported: 10/19/04

Analyte	Result	Units	Flags
2,4-Dimethylphenol	< 330	ug/kg	
Dimethylphthalate	< 330	ug/kg	
Di-n-butylphthalate	< 330	ug/kg	
4,6-Dinitro-2-methylphenol	< 1,600	ug/kg	
2,4-Dinitrophenol	< 1,600	ug/kg	
2,4-Dinitrotoluene	< 250	ug/kg	
2,6-Dinitrotoluene	< 260	ug/kg	
Di-n-octylphthalate	< 330	ug/kg	
Fluoranthene	< 330	ug/kg	
Fluorene	< 330	ug/kg	
Hexachlorobenzene	< 330	ug/kg	
Hexachlorobutadiene	< 330	ug/kg	
Hexachlorocyclopentadiene	< 330	ug/kg	
Hexachloroethane	< 330	ug/kg	
Indeno[1,2,3-cd]pyrene	< 330	ug/kg	
Isophorone	< 330	ug/kg	
2-Methylnaphthalene	< 330	ug/kg	
2-Methylphenol	< 330	ug/kg	
3&4-Methylphenol	< 330	ug/kg	
Naphthalene	< 330	ug/kg	
2-Nitroaniline	< 1,600	ug/kg	
3-Nitroaniline	< 1,600	ug/kg	
4-Nitroaniline	< 1,600	ug/kg	
Nitrobenzene	< 260	ug/kg	
2-Nitrophenol	< 1,600	ug/kg	
4-Nitrophenol	< 1,600	ug/kg	
N-Nitrosodimethylamine	< 330	ug/kg	
N-Nitroso-di-n-propylamine	< 330	ug/kg	
n-Nitrosodiphenylamine	< 330	ug/kg	
Pentachlorophenol	< 330	ug/kg	
Phenanthrene	< 330	ug/kg	
Phenol	< 330	ug/kg	
Pyrene	< 330	ug/kg	
1,2,4-Trichlorobenzene	< 330	ug/kg	
2,4,5-Trichlorophenol	< 660	ug/kg	
2,4,6-Trichlorophenol	< 330	ug/kg	



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**Analytical Report**

Client: CLAYTON GROUP SERVICES  
Project ID: 15-04183.00-003  
Sample Number: 39379  
Sample Description: B-31/7  
Lab File ID: 39379-80

Date Received: 09/30/04  
Date Taken: 09/29/04  
Time Taken: 1130  
Date Reported: 10/19/04

Analyte	Result	Units	Flags
<b>PCBs Method 3540C/8082</b>			
Preparation Date: 10/14/04			
Date Analyzed: 10/15/04			
Aroclor 1016	< 80.0	ug/kg	
Aroclor 1221	< 80.0	ug/kg	
Aroclor 1232	< 80.0	ug/kg	
Aroclor 1242	< 80.0	ug/kg	
Aroclor 1248	< 80.0	ug/kg	
Aroclor 1254	< 160	ug/kg	
Aroclor 1260	< 160	ug/kg	



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**Analytical Report**

Client: CLAYTON GROUP SERVICES  
Project ID: 15-04183.00-003  
Sample Number: 39380  
Sample Description: B-54/4-6  
Lab File ID: 39379-80

Date Received: 09/30/04  
Date Taken: 09/28/04  
Time Taken: 1645  
Date Reported: 10/19/04

Analyte	Result	Units	Flags
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**PCBs Method 3540C/8082**

Preparation Date: 10/14/04  
Date Analyzed: 10/15/04

Aroclor 1016	< 80.0	ug/kg	
Aroclor 1221	< 80.0	ug/kg	
Aroclor 1232	< 80.0	ug/kg	
Aroclor 1242	< 80.0	ug/kg	
Aroclor 1248	< 80.0	ug/kg	
Aroclor 1254	< 160	ug/kg	
Aroclor 1260	< 160	ug/kg	



First Environmental Laboratories  
1600 Shore Road, Suite D  
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Phone: (630) 778-1200 • Fax: (630) 778-1233  
24 Hr. Pager (708) 569-7507  
E-mail: info@firstenv.com  
EPA Certification 100292

CHAIN OF CUSTODY RECORD

Company Name: Clayton Group Services  
Street Address: 3140 Finley Rd  
City: Peoria, IL Zip: 61615  
Phone: 795-3222 Fax: 795-1130  
Send Report To: Marie Mollie  
Sampled By: Darren Lawrence, S. Peterson

Matrix Codes: S = Soil W = Water O = Other			Analyses										Lab I.D.
Date/Time Taken	Sample Description	Matrix	MLA	BTEX	MTBG	SUDG	PH	Trace Metals #	VOCs	Comments			
9/29 0754	B-62/3	S	X								38316		
0800	B-62/8	S	X								17		
0737	B-48/3	S	X	X							18		
0840	B-34/3	S	X								19		
0914	B-31/3	S	X								20		
9/29 1600	B-35/3	S									21		
9/29 1050	B-38/9	S									22		
1130	B-31/7	S									23		
1350	B-31/11	S									24		
1414	B-42/9	S									25		
1436	B-42/11	S									26		
1520	GW-29F	W	X								27		

Cooler Temperature: \_\_\_\_\_ °C  
Received within 6 hrs. of collection: \_\_\_\_\_

Notes and Special Instructions: \* Ross Chadwick has list of target metals  
\* See attached table for Target Metals

Relinquished By: [Signature] Date/Time: 9/29 1700 Received By: [Signature] Date/Time: 9/30/04 1245  
Relinquished By: \_\_\_\_\_ Date/Time: \_\_\_\_\_ Received By: \_\_\_\_\_ Date/Time: \_\_\_\_\_





# CHAIN OF CUSTODY RECORD

First Environmental Laboratories  
1600 Shore Road, Suite D  
Naperville, Illinois 60563  
Phone: (630) 778-1200 • Fax: (630) 778-1233  
24 Hr. Pager (708) 569-7597  
E-mail: info@firstenv.com  
TEPA Certification # 100292

Company Name: Clayton  
Street Address: 3140 Finley Rd  
City: Downers Grove State: IL Zip: 60515  
Phone: 795-3200 Fax: 795-1130  
Send Report To: Deborah M. Miller  
Sampled By: Corina Lenzmeier, Sam Peterson

Matrix Codes: S = Soil W = Water O = Other									
Date/Time Taken	Sample Description	Matrix	Analyses					Comments	Lab I.D.
8/28 1124	B-39/2	S	Total Lead	TPH	PCBs	PNA's	TCDF Lead		38325
1304	B-39/10	S							26
1355	B-37/5	S							27
1540	B-36/5	S							28
8/29 0950	B-33/3	S							29
1001 1050	B-32/3	S							30
1050	B-38/11	S							
1325	B-41/2	S							
1505	B-29/2	S							31
1520	GW-29U	W							32
									33

Cooler Temperature: 24 °C  
Received within 6 hrs. of collection: \_\_\_\_\_

Notes and Special Instructions: \_\_\_\_\_

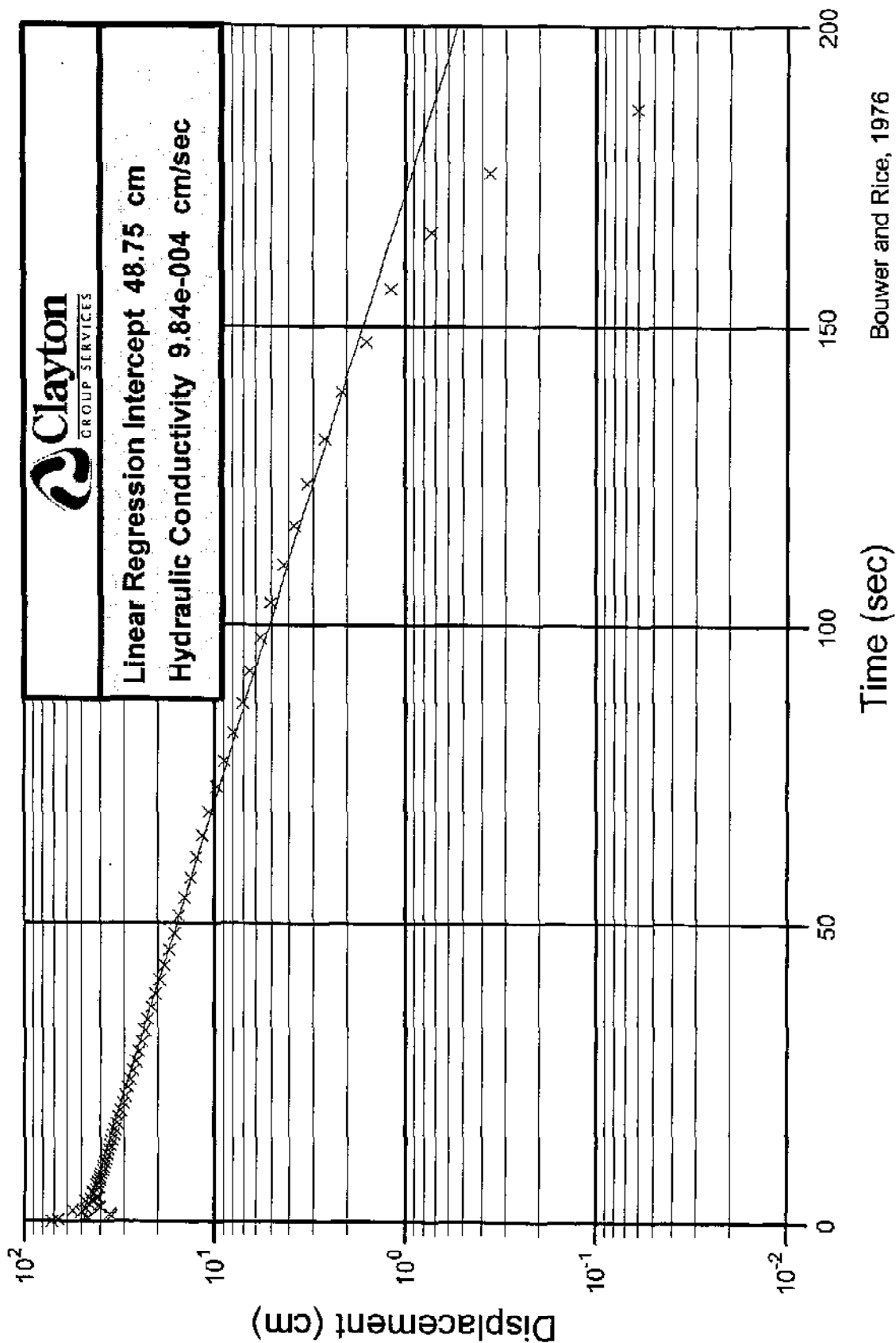
Relinquished By: Sam - Z Date/Time: 9/29/1700 Received By: [Signature] Date/Time: 9/30/04 1200  
Relinquished By: \_\_\_\_\_ Date/Time: \_\_\_\_\_ Received By: \_\_\_\_\_ Date/Time: \_\_\_\_\_



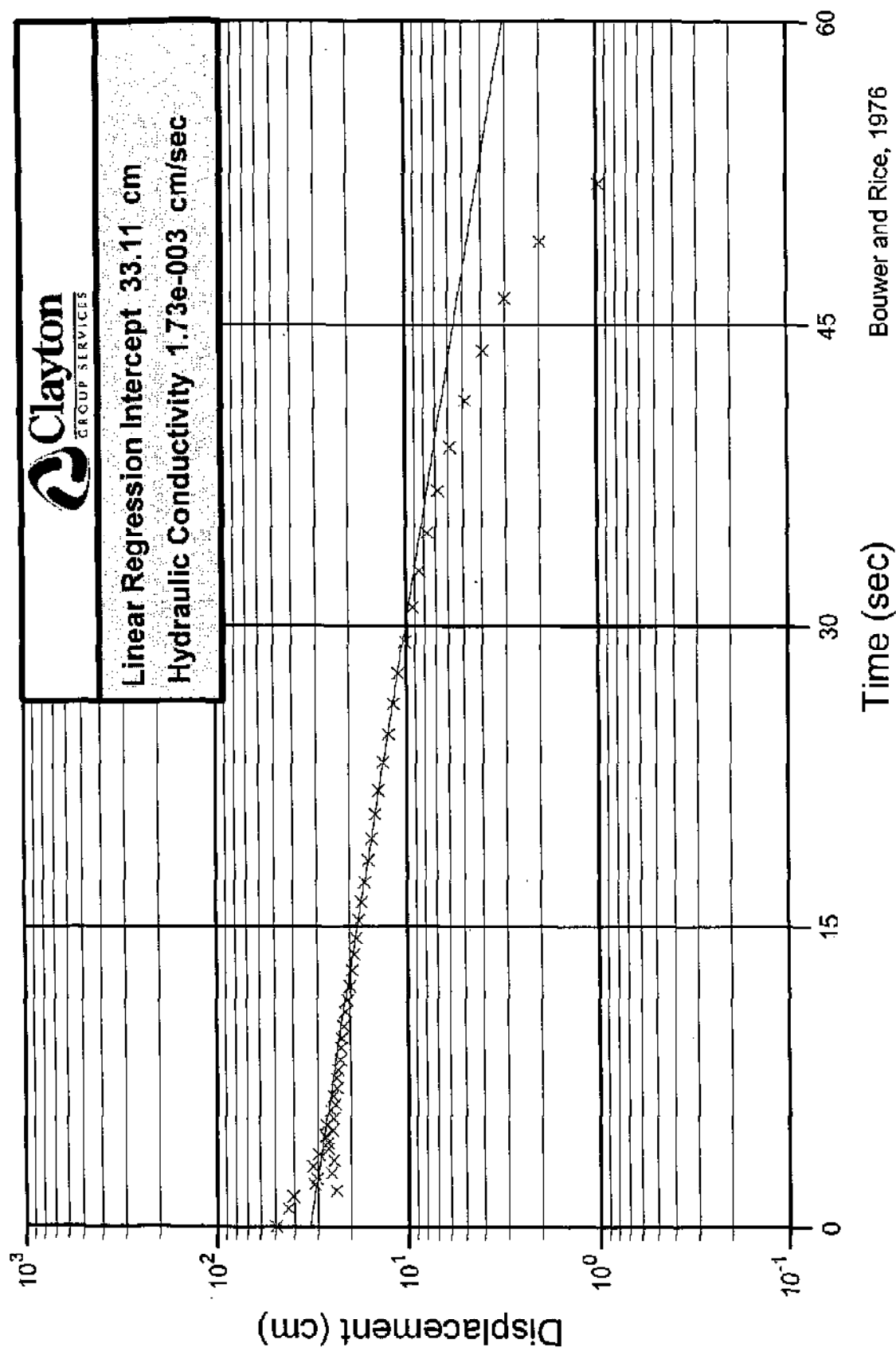
## **APPENDIX G**

### **HYDRAULIC CONDUCTIVITY RESULTS**

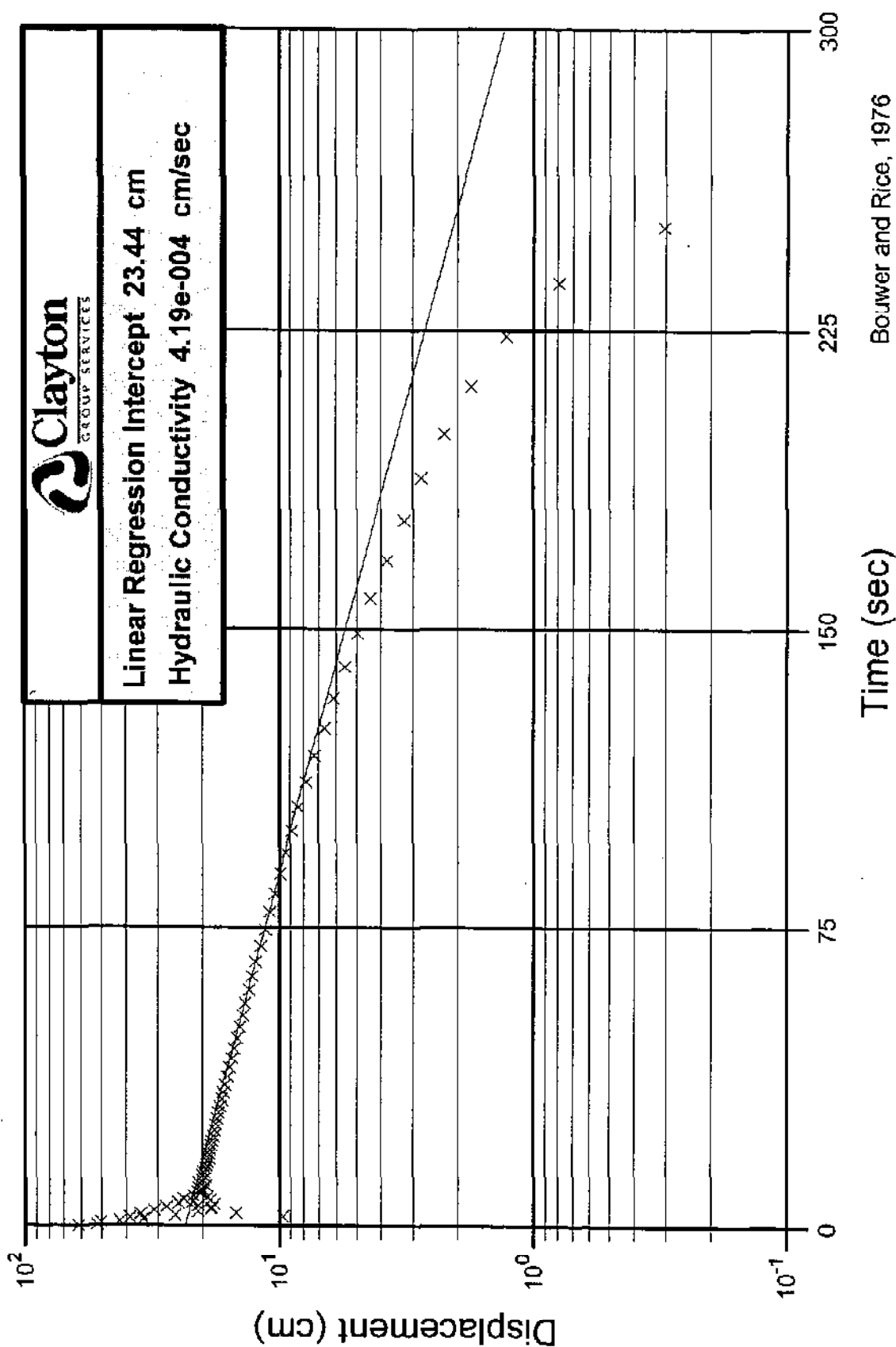
# MW-1 Falling Head



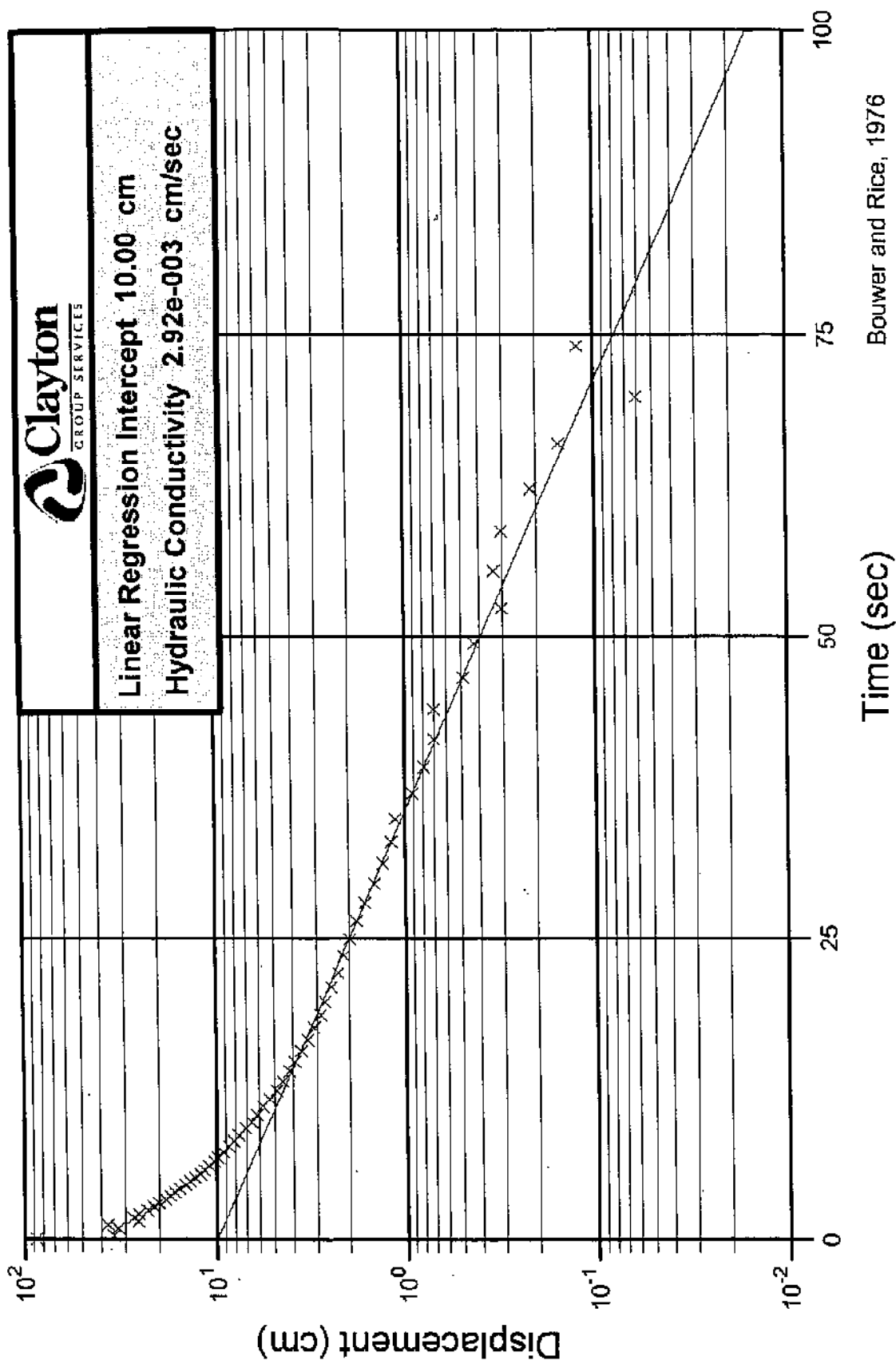
# MW-1 Rising Head



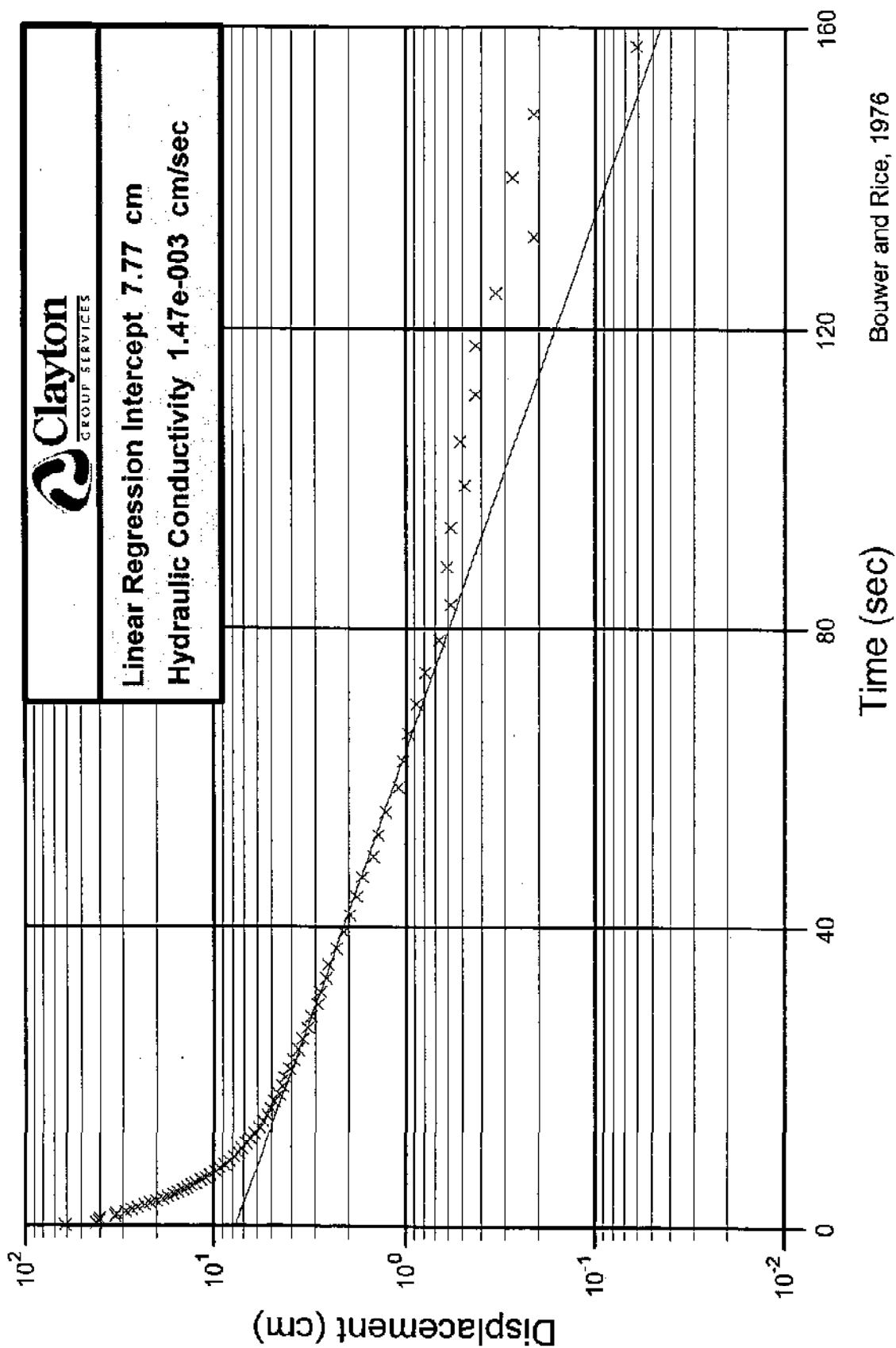
# MW-2 Rising Head



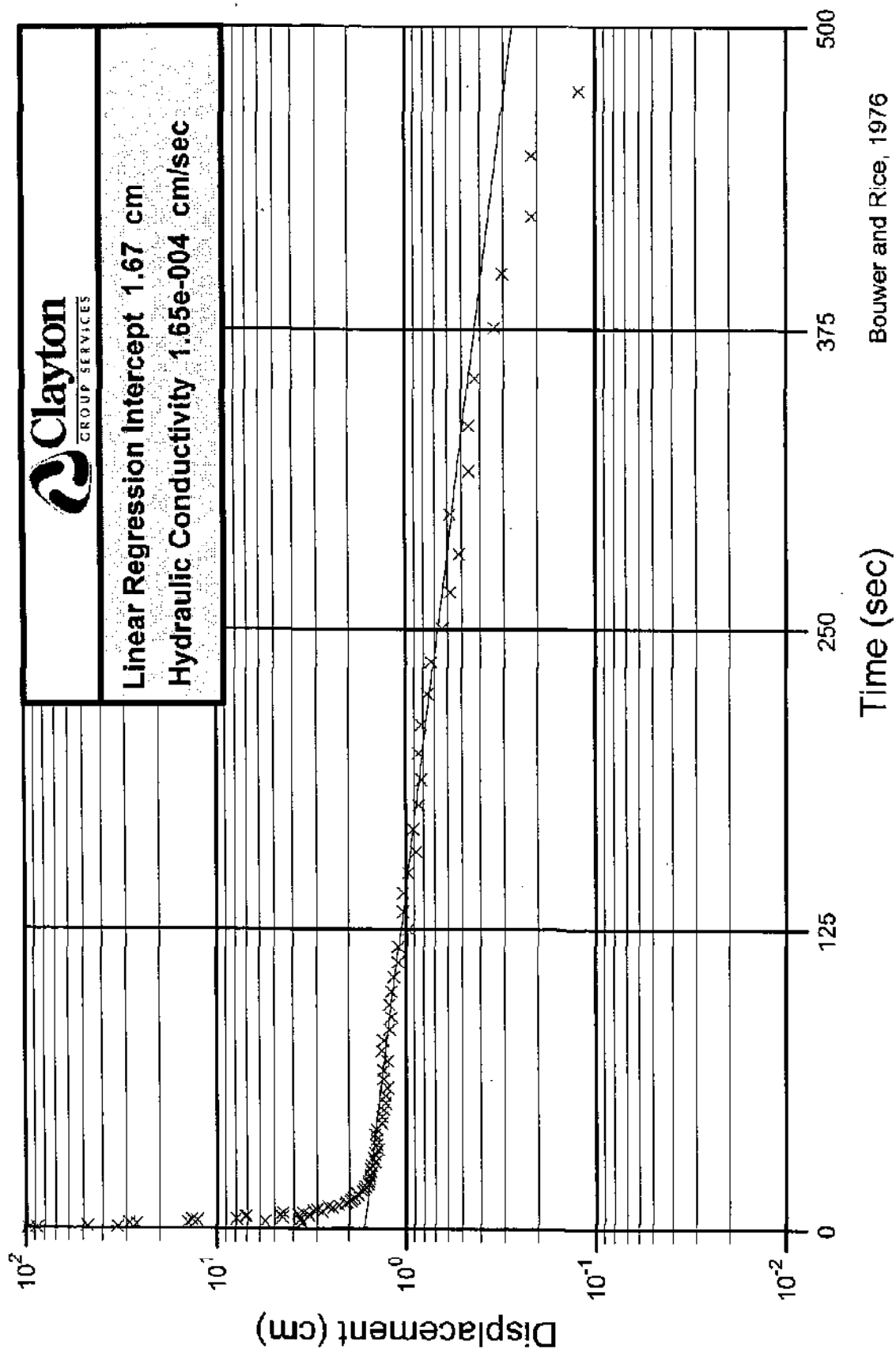
# MW-5 Falling Head



# MW-5 Rising Head



# MW-6 Falling Head



# MW-6 Rising Head

